

EXHIBIT R SCENIC RESOURCES

OAR 345-021-0010(1)(r)

TABLE OF CONTENTS

		Page
R.1	SITE CONTEXT	R-1
R.2	METHODOLOGY	R-2
	R.2.1 Define Analysis Area.....	R-2
	R.2.2 Review Applicable Plans.....	R-2
	R.2.3 Conduct Visual Impact Analysis.....	R-2
	R.2.3.1 Use ArcGIS to Develop Scenic Resources Map	R-2
	R.2.3.2 Conduct Site Visit, Select Photo Survey Points, and Prepare Visual Analysis.....	R-3
	R.2.3.3 Follow Standard Visual Assessment Methods	R-3
R.3	LOCAL, STATE, TRIBAL, AND FEDERAL PLANS.....	R-5
R.4	SCENIC RESOURCES IDENTIFIED AS SIGNIFICANT OR IMPORTANT	R-6
	R.4.1 Local Land Use Plans	R-6
	R.4.1.1 City of Madras Comprehensive Plan (City of Madras, 2003)	R-6
	R.4.1.2 Jefferson County Comprehensive Land Use Plan (Jefferson County, Oregon, 2006).....	R-6
	R.4.2 State Land Management Plans.....	R-7
	R.4.2.1 The Cove Palisades State Park Master Plan (Oregon Parks and Recreation Department, 2002).....	R-7
	R.4.2.2 Madras Mountain Views Scenic Bikeway Management Plan (Designated by the Oregon Parks & Recreation Department, 2013; and Managed by Jefferson County Chamber of Commerce, 2013).....	R-8
	R.4.3 Tribal Management Plans	R-8
	R.4.3.1 Overview.....	R-8
	R.4.3.2 Management Plan (Confederated Tribes of the Warm Springs Reservation of Oregon, 1995).....	R-8
	R.4.4 Federal Land Management Plans.....	R-9
	R.4.4.1 Record of Decision for the Land and Resource Management Plan for the Ochoco National Forest and Crooked River National Grassland (U.S. Forest Service, 1989a)	R-9
	R.4.4.2 Crooked River National Forest Land and Resource Management Plan (U.S. Forest Service, 1989)	R-9
	R.4.4.3 Lower Deschutes River Management Plan Record of Decision (U.S. Bureau of Land Management—Prineville District, Oregon, 1993).....	R-9
R.5	SIGNIFICANT POTENTIAL ADVERSE IMPACTS.....	R-10
	R.5.1 Overview	R-10
	R.5.2 Loss of Vegetation	R-12
	R.5.3 Alteration of Landscape	R-12
	R.5.4 Visual Impacts.....	R-13
	R.5.4.1 Lower Deschutes River, Wild and Scenic River (from Pelton Dam Downstream to the North County Line)	R-13
	R.5.4.2 Madras Mountain Views Scenic Bikeway.....	R-14
	R.5.4.3 The Cove Palisades State Park.....	R-14
	R.5.4.4 Canyon Walls of Deschutes and Crooked Rivers.....	R-15
	R.5.4.5 Lake Billy Chinook View Area.....	R-16
	R.5.5 Glare Impacts.....	R-16
	R.5.6 Conclusion	R-17

R.6 MITIGATION R-17
R.7 MAPS OF SCENIC RESOURCES R-17
R.8 MONITORING..... R-17
R.9 SUMMARY R-18
R.10 REFERENCES..... R-18

ATTACHMENTS

- R-1 Existing Conditions Photographs
- R-2 Land Use Management Plan Excerpts

TABLES

R-1 Identification of Applicable Local, State, Tribal, and Federal Land Use and Management Plans that Pertain to Lands within 10 Miles of the Facility Site Boundary R-5
R-2 Scenic Resources Identified in Applicable Local, State, Tribal, and Federal Land Use and Management Plans that Pertain to Lands within 10 Miles of the Facility Site Boundary.... R-11

FIGURES

- R-1 Significant and Important Scenic Resources within 10 miles of the Facility Site Boundary
- R-2 Potential Visibility and Photo Survey Points within 10 miles of the Facility Site Boundary

This Exhibit provides an assessment of potential impacts on scenic resources within 10 miles of the Madras Solar Energy Facility (Facility) site boundary that are identified as significant or important in applicable local, state, tribal, or federal land management plans. No designated significant or important scenic resources are located within the Facility site boundary.

R.1 SITE CONTEXT

Madras PV1, LLC (Applicant) proposes to site the Facility entirely within unincorporated Jefferson County, Oregon. The Facility site is generally located on a plateau approximately 3.5 miles south of United States Highway 26, approximately 3.3 miles west of the City of Madras, and approximately 0.6 mile east of Lake Simtustus. The Facility's major components, structures, and systems include the solar modules, inverters, transformers, and the point of interconnection (POI) substation where the Facility will connect to Portland General Electric's (PGE) existing 230-kilovolt (kV) Pelton to Round Butte transmission line that intersects the Facility site. The Applicant does not propose development of a generation-tie transmission line as part of the Facility. The Facility components will be located on private land for which the Applicant has already negotiated an exclusive long-term option to lease.

The Facility site boundary covers approximately 284 acres and encompasses portions of Sections 030 and 031, in Township 10 South and Range 13 East. The entire area within and immediately surrounding the Facility site boundary is zoned for agricultural use in Jefferson County. The area within the Facility site boundary is not actively farmed, has not been cultivated since 1985, and has been used for pasture only once in the last 25 years. No existing residences or farm-related structures are located on the Facility site and few are located within 1 mile of the Facility site boundary.

In late August/early September 2018, a fire burned approximately two-thirds of the area within the Facility site boundary. Habitat within the Facility site boundary is generally characterized by juniper and shrub-scrub habitat consisting of rabbitbrush with an understory of mixed native and invasive grasses. A small area of woody wetland habitat occurs along the northern edge of the Facility site boundary adjacent to Willow Creek. This habitat is generally characterized by juniper forest and rocky areas devoid of vegetation. Areas along the northern and eastern perimeter of the Facility site boundary are characterized by steep, rocky cliffs that are also largely devoid of vegetation.

As described in Exhibit K, adjacent land uses within approximately 0.5 mile of the Facility site boundary include the following uses and features:

- **North** – Rocky cliffs along the south side of Willow Creek Canyon, private RV park owned and operate by Lake Simtustus Resort and Marina, and federal public lands within Willow Creek Canyon managed by the U.S. Department of the Interior Bureau of Land Management (BLM). PGE's 230-kV Pelton to Round Butte transmission line intersects the Facility site boundary from the northeast before continuing southwest. A second existing transmission line, PacifiCorp's 69-kV Cove to Pelton to Warm Springs transmission line, approaches the Facility site boundary from the northwest. At its nearest point, PacifiCorp's 69-kV Cove to Pelton to Warm Springs transmission line is located approximately 750 feet west of the Facility site boundary and continues south to parallel the west side of PGE's existing 230-kV Pelton to Round Butte transmission line.
- **East** – Rocky cliffs, steep slopes and smaller canyons along a tributary to Willow Creek and within Willow Creek Canyon on federal public land managed by BLM, and other undeveloped grassland/rangeland.
- **South** – Undeveloped grassland/rangeland under private ownership, PGE's existing 230-kV Pelton to Round Butte transmission line, PacifiCorp's 69-kV Cove to Pelton to Warm Springs transmission line, and a private airstrip owned and operated by Bombay Farms approximately 0.5 mile south of the Facility site boundary.
- **West** – Undeveloped grassland/rangeland within the boundary of the Crooked River National Grassland, canyon walls east of Lake Simtustus, and grassland/rangeland associated with the Warm Springs Reservation.

Figure C-3 in Exhibit C shows the location of permitted and operational energy generation facilities in relation to the Facility site. The nearest existing facilities are the Pelton Dam located approximately 1.8 miles north and the Elbe Solar Center located approximately 2.5 miles southeast. The existing transmission lines described above are the visually prominent developed features on the landscape within and adjacent to the Facility site boundary and are a focal point of views toward the Facility.

For the purpose of this analysis, designated scenic resources refer to those scenic resources formally inventoried or designated as significant or important in a local, state, tribal, or federal land management plan.

Oregon Administrative Rules (OAR) 345-021-0010(1)(r) *An analysis of significant potential impacts of the proposed facility, if any, on scenic resources identified as significant or important in local land use plans, tribal land management plans and federal land management plans for any lands located within the analysis area, providing evidence to support a finding by the Council as required by OAR 345-022-0080, including:*

R.2 METHODOLOGY

Response: An analysis of the potential effects of the Facility on significant or important scenic resources was undertaken in response to OAR requirements. The analysis methodology consisted of a series of steps designed to respond to OAR requirements for evaluating impacts on scenic resources. These steps are outlined below.

R.2.1 Define Analysis Area

The scenic resources analysis area is defined as the area within the Facility site boundary and the area within 10 miles of the Facility site boundary as outlined in OAR 345-001-0010(2) and (59)(b). The 10-mile scenic resources analysis area for Exhibit R is depicted on Figures R-1 and R-2.

R.2.2 Review Applicable Plans

Applicable local, state, tribal, and federal land use and management plans that pertain to lands within the 10-mile scenic resources analysis area were reviewed to identify specific scenic resources designated as significant or important in the plans. Applicable land use and management plans reviewed for this analysis are discussed in Section R.3 (Local, State, Tribal, and Federal Plans).

R.2.3 Conduct Visual Impact Analysis

Analysis was conducted to determine the likelihood that Facility components will potentially be seen from scenic resources identified as significant or important in the applicable local, state, tribal, and federal land use and management plans. The Applicant's visual impact analysis considered the Facility components described in Exhibit B that will occur within the boundary of the security ("perimeter") fence shown on Figure C-1 in Exhibit C.

R.2.3.1 Use ArcGIS to Develop Scenic Resources Map

Environmental Systems Research Institute ArcGIS software was used to develop a scenic resources map that includes the locations of significant or important scenic resources within the scenic resources analysis area identified during the review of applicable local, state, tribal, and federal land use and management plans (see Figure R-1).

To identify areas within the 10-mile scenic resources analysis area from which the Facility components might be visible, a viewshed or zone of visual influence (ZVI) analysis was conducted. The ZVI viewshed analysis shown on Figure R-2 provides a screening-level analysis to determine whether Facility components may be visible from the scenic resources shown on Figure R-1. If the ZVI viewshed analysis identifies potential visibility from the identified scenic resources, then additional evaluation may be conducted. Because the ZVI viewshed analysis does not take into account the screening role of vegetation and existing structures, in some areas where Facility visibility is indicated, views may be screened by these or other features. In addition, the ZVI model is a line-of-sight model that does not account for attenuating factors such as distance, haze, humidity, background landscape, or weather, which may make the Facility invisible or barely visible from certain locations under many atmospheric or weather conditions.

It is important to note that the visibility pattern shown on the ZVI viewshed model on Figure R-2 is highly conservative. The ZVI viewshed analysis was conducted to determine the widest visual range using the tallest Facility components described in Exhibit B, which are: (1) the four H-frame poles that will hold the overhead cables connecting the substation to the POI in the center of the Facility; and (2) pad-mounted inverters and transformers located throughout the Facility. The component heights used in the ZVI model include 80 feet for the substation and POI location where the H-frame poles will be located, and 10 feet for the entire area within the Facility's security fence shown on Figure C-1 in Exhibit C, meant as a worst-case representation of the pad-mounted inverters and transformers. Thus, the model exceeds the anticipated maximum height of the solar photovoltaic modules when fully rotated (approximately 8 feet) and maximizes the solar array layout within the fenced area of the Facility.

The orange shading on Figure R-2 represents areas of Facility visibility for the H-frame poles in the substation and POI with a maximum height of 80 feet. The purple shading on Figure R-2 represents areas of Facility visibility for the pad-mounted inverters and transformers with a maximum height of approximately 10 feet, for the entire surface inside the security fence.

In some areas where the model indicates the Facility would be visible, only a corner of the Facility may potentially be visible, and under most circumstances ambient weather conditions or existing vegetation and structures in the foreground substantially reduce or eliminate the visibility of the Facility's features.

Review of the ZVI viewshed analysis shown on Figure R-2 made it possible to determine whether potential scenic resources identified in the applicable land use plans will potentially be visible and to determine where further analysis was required, as described directly below.

R.2.3.2 Conduct Site Visit, Select Photo Survey Points, and Prepare Visual Analysis

After developing the scenic resources map (Figure R-2), the Applicant's visual resource specialist conducted a field visit throughout the Facility's 10-mile scenic resources analysis area on July 1 and 2, 2019. The field visit focused on assessing and documenting with photographs the views of Facility components identified as potentially visible from scenic resources shown on the ZVI viewshed analysis (Figure R-2).

The visual resource specialist relied on field observations, review of aerial photography, and professional expertise to assess the extent to which the Facility will be visible, including an evaluation of the screening potential of existing development, topography, and vegetation. Attention to topographic features, elevation change, as well as the type, density, and height of vegetation were considered when making assessments about screening. Another major factor used by the visual resource specialist to assess the level of Facility visibility from the applicable scenic resource was the distance between the two areas.

To document the existing views from sensitive viewing areas, photographs were taken using a high-resolution 35-millimeter (mm) single-lens reflex digital camera. The camera was set to take photos equivalent to those taken with a 35-mm camera with a 50-mm focal length at a height of approximately 5 feet, to create an image that simulates the view of the human eye. The location of each photo viewpoint, referred to herein as Photo Survey Point, was recorded using a global positioning system device.

Attachment R-1 contains a set of photographs that present the existing view for each Photo Survey Point toward the Facility site. As explained in Section R.5.5, it is important to note that the Applicant will implement glare reduction technology as part of the Facility's design. This technology will minimize reflectivity and glare that may be visible within the scenic resources analysis area.

R.2.3.3 Follow Standard Visual Assessment Methods

The Federal Highway Administration (FHWA) methodology is one of three widely used methodologies used to conduct visual analysis. The other two methodologies are the BLM Visual Resource Management (VRM) and the U.S. Forest Service (USFS) Scenery Management System (SMS). The FHWA, VRM, and SMS methodologies all use similar processes to establish existing visual conditions and assess impacts on those existing conditions resulting from a proposed development. While these three methodologies are similar in their analysis approach, they differ in that they were designed for use in different contexts. For example, the VRM and

SMS methodologies are more appropriate and more commonly used for evaluation of the kinds of projects likely to occur on federal lands managed by the BLM and USFS. Given that the Facility is proposed outside of the Crooked River National Grassland and not on federal lands, and lacking the linkage to federal land management plans for development of federally managed lands, the VRM and SMS methodologies are inapplicable.

In contrast, the FHWA methodology has broader applicability. Its evaluation system is well suited to projects of varying scale and type. Also, it can work in a broad range of landscapes – from undeveloped to highly developed. In addition, because it produces results that are not linked to a specific agency’s land management framework, it is well suited to the evaluation of the visual impacts of projects located on private lands. Accordingly, the visual analysis conducted for the Facility was based on the FHWA Visual Impact Assessment methodology, which is defined in *Guidelines for the Visual Impact Assessment of Highway Projects* (FHWA, 2015).

The FHWA methodology consists of the following six steps:

- 1) Establish the project’s visual limits (viewshed)
- 2) Determine who has views of the project (viewers)
- 3) Describe and assess the landscape that exists before project construction (site context)
- 4) Determine and evaluate views of and from the project for both before and after project construction (using site visit photos provided in Attachment R-1)
- 5) Describe the potential visible changes to the project area and its surroundings that would result from the proposed project (using site visit photos provided in Attachment R-1)
- 6) Assess the response of viewers looking at and from the project, before and after project construction (using site visit photos provided in Attachment R-1)

The first three steps described above are used to establish the baseline conditions of the existing landscape and to determine how much of the Facility is visible from within the scenic resources analysis area. The existing landscape of the Facility site, or site context, is described in Section R.1. For the purpose of this analysis, the Facility’s visual limits are defined as the scenic resources analysis area described in Section R.2.1. Plans identifying significant or important scenic resources within the scenic resources analysis area are provided in Section R.3 and associated scenic resources are described in Section R.4. Potential viewers of the Facility from identified scenic resource locations are also described in Section R.4.

The Applicant’s visual resource specialist relied on field observations, a review of aerial photography, and professional expertise to address the last three steps described above. This approach to the analysis is consistent with OAR 345-021-0010(1)(r) in order to determine whether significant adverse visual impacts will result from the Facility. As described in Section R.5, features of the existing environment (including vegetation and topography) screen potential views of the Facility from the majority of scenic resources identified within the 10-mile scenic resources analysis area. The distance of a scenic resource from the Facility site boundary and the relationship of the elevation of the scenic resource to the elevation of the Facility site were also considered in this analysis. The few scenic resources that were determined to have direct, unobstructed views of the Facility were also evaluated under the last three steps described above.

As described above, distance between the viewer at the designated scenic resource and the Facility is an important factor in determining potential visual impacts. In accordance, the FHWA methodology applies distance zones to identify the importance of views based on the position of the viewer in relation to the landscape (FHWA, 2015). Taking into account attenuating factors such as topography and vegetation screening, the closer the Facility is to the viewer, the more dominant it is and the greater its importance within the viewshed. Similarly, the further the Facility is to the viewer, the more obscure the Facility becomes in background views. Distance zones are defined as follows (FHWA, 2015):

- **Foreground:** 0.25 – 0.5 mile from the viewer. From this zone, the viewer may be able to see details of the Facility and can gain an understanding of the Facility’s scale based on the relation of the viewer’s size to surrounding landscape elements.

- **Middleground:** Extends from the foreground zone to 3 – 5 miles from the viewer. From this zone, the viewer may be able to relate individual elements of the Facility to a larger visual landscape and to understand the Facility in context with the foreground, but Facility components become less defined and less detailed.
- **Background:** Extends from the middleground zone to the limit of visibility. From this zone, views of the Facility are often obscured. Where views of the Facility in the background zone are available, the perceived mass and visibility of Facility components are reduced and become a less substantial portion of the total landscape because detail is lost and appears blended or muted with surrounding elements.

Based on the considerations described above, the FHWA methodology is the appropriate methodology to form the basis of the analysis contained in this Exhibit. It provides a systematic method that is well adapted to developing a clear understanding of the potential visual effects of project types like the proposed Facility that are located on privately owned lands in an area that already has a substantial degree of development.

Using the framework of the FHWA methodology, the visual analysis was also designed to demonstrate compliance with OAR 345-022-0080(1), which requires the following:

[T]he Council must find the design, construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impact to scenic resources and values identified as significant or important in local land use plans, tribal land management plans and federal land management plans for any lands located within the analysis area described in the project order.

The analysis provided below presents the information necessary for the Energy Facility Siting Council to make findings under OAR 345-022-0080(1).

R.3 LOCAL, STATE, TRIBAL, AND FEDERAL PLANS

OAR 345-021-0010(1)(r)(A) *A list of the local, tribal and federal plans that address lands within the analysis area.*

Response: The applicable local, state, tribal, and federal land use and management plans that pertain to areas within the 10-mile scenic resources analysis area are listed in Table R-1. Some portion of the Facility may be visible from these land management areas within the scenic resources analysis area.

Table R-1. Identification of Applicable Local, State, Tribal, and Federal Land Use and Management Plans that Pertain to Lands within 10 Miles of the Facility Site Boundary

Jurisdiction	Plan Title
Local (City)	
City of Madras, Oregon	<i>City of Madras Comprehensive Plan</i> (revised through periodic review in 2003, amended in 2018)
Local (County)	
Jefferson County, Oregon	<i>Jefferson County Comprehensive Plan</i> (adopted in 2006, amended 2013)
State^a	
Oregon Parks and Recreation Department	<i>The Cove Palisades State Park Master Plan</i> (2002)
Oregon Parks and Recreation Department	<i>Madras Mountain Views Scenic Bikeway Management Plan</i> (2013)
Tribal	
Confederated Tribes of the Warm Springs Reservation of Oregon (CTWSRO)	<i>Management Plan</i> (1995)
Federal	

Table R-1. Identification of Applicable Local, State, Tribal, and Federal Land Use and Management Plans that Pertain to Lands within 10 Miles of the Facility Site Boundary

Jurisdiction	Plan Title
United States Department of Agriculture Forest Service	<i>Record of Decision for the Land and Resource Management Plan for the Ochoco National Forest and Crooked River National Grassland (1989)</i>
United States Department of Agriculture Forest Service	<i>Crooked River National Forest Land and Resource Management Plan (1989)</i>
Bureau of Land Management, Central Oregon Resource Area	<i>Lower Deschutes River Management Plan Record of Decision (1993)</i>

^a Two of the eight management plans reviewed for this Exhibit are state management plans. Although the Applicant has studied potential impacts on scenic resources identified in state land use and management plans within the scenic resources analysis area, based on the regulatory language, the Applicant reserves the right to take the position that OAR 345-022-0080 does not require analysis of state land use and management plans with respect to scenic resources.

R.4 SCENIC RESOURCES IDENTIFIED AS SIGNIFICANT OR IMPORTANT

OAR 345-021-0010(1)(r)(B) *Identification and description of the scenic resources identified as significant or important in the plans listed in (A), including a copy of the portion of the management plan that identifies the resource as significant or important.*

Response: This section describes the significant or important scenic and aesthetic resources that were identified in the plans listed in Table R-1. Following this discussion, Table R-2 in Section R.5 summarizes potential impacts resulting from the Facility on the significant or important resources identified in the applicable land use management plans. Copies of the portions of the management plans that identify each resource as significant or important are included in Attachment R-2.

R.4.1 Local Land Use Plans

This section includes analysis of the local land use plans that exist within the scenic resources analysis area, as listed in Table R-1.

R.4.1.1 City of Madras Comprehensive Plan (City of Madras, 2003)

The City of Madras, Oregon, is located approximately 3.3 miles east of the Facility site boundary and within the scenic resources analysis area. Land use planning in the City of Madras is guided by the *City of Madras Comprehensive Plan (CMCP)* (City of Madras, 2003). The CMCP provides a Goal 5 inventory which identifies the Cascade Mountain Range as a scenic resource under the “Natural Resources” section of the plan. Specifically, the CMCP states:

Almost any location in the City offers scenic views and vistas of the nearby Cascade Mountain Range. It is the desire of the City to preserve this scenic resource for the enjoyment of the residents of the City. To that end, the city shall establish height regulations to limit the height of structures, residential and commercial, in the Zoning Ordinance.

CMCP Goal 5, Policy A addresses conservation of open space and protection of natural resources and states that the City shall: “Preserve the scenic vistas afforded by the Cascade Mountain Range” (City of Madras, 2003). The Facility site is not located within the City of Madras and is not subject to the City’s zoning ordinance. In addition, the Cascade Mountain Range is not located within the scenic resources analysis area and is not evaluated as a significant or important scenic resource in this analysis. Furthermore, this CMCP policy is aimed at protecting views of the mountains, not from the mountains, and the Facility will have a minimal impact on these views. Thus, the CMCP and the Cascade Mountain Range are not addressed further in this analysis.

R.4.1.2 Jefferson County Comprehensive Land Use Plan (Jefferson County, Oregon, 2006)

The Facility site is located entirely within Jefferson County (see Figure R-1). Land use planning in Jefferson County is guided by the *Jefferson County Comprehensive Plan (JCCP)* (Jefferson County, 2006). The JCCP identifies three significant or important scenic resources within the scenic resource analysis area:

- Lower segment of the Deschutes River (from Pelton Dam downstream to the north County line)
- Cove Palisades State Park
- Canyon walls of the Deschutes and Crooked Rivers

These resources are identified in the JCCP under Goal 5 Natural Resources, Scenic and Historic Areas, and Open Spaces. Excerpts from Goal 5 of the JCCP are provided in Attachment R-2, which highlight the three significant or important scenic resources inventoried as federal wild and scenic rivers, state scenic waterways, and outstanding scenic sites.

The JCCP acknowledges five river segments for their scenic designation. Of these five, only the lower segment of the “Deschutes River – from Pelton Dam downstream to the north County line” is within the scenic resources analysis area. This river segment is identified as both a federal wild and scenic river and state scenic waterway (see pages 29 and 30 of the JCCP, respectively). This segment of the river segment is also referred to as the Lower Deschutes Wild and Scenic River and is managed in accordance with the *Lower Deschutes River Management Plan Record of Decision* (BLM, 1993) described below in Section R.4.4. In addition, Policies 6.2 and 7.2 of the JCCP, respectively, state that the County’s “Zoning Ordinance should require that measures be taken to reduce the visibility of buildings from a designated...” federal wild and scenic river or state scenic waterway (Jefferson County, 2006). The mapped boundary of the Lower Deschutes Wild and Scenic River management area is approximately 4.2 miles north of the Facility site boundary. The Lower Deschutes Wild and Scenic River is listed as a significant or important scenic resource in Table R-2, shown on Figures R-1 and R-2, and analyzed below in Section R.5.

Under “Scenic Views and Sites,” page 42 of the JCCP identifies 13 “outstanding scenic sites” (Jefferson County, 2006). Two of these 13 outstanding scenic sites, the “Cove Palisades State Park” and the “Canyon walls of the Deschutes and Crooked Rivers,” are within the scenic resources analysis area (Jefferson County, 2006). The JCCP states that the “many steep-walled canyons running through the County are another valuable scenic resource” and notes that the “Cove Palisades State Park is another area of spectacular canyon scenery. The park occupies shoreline areas of Lake Billy Chinook behind Round Butte Dam. Travel by boat or car provides views of the Deschutes, Crooked, and Metolius arms of the reservoir and the canyons which enclose them” (Jefferson County, 2006). JCCP Policy 16.1, related to the protection of scenic resources states “Consideration should be given to the adoption of Zoning Ordinance regulations to minimize the visibility of large or tall structures that would infringe on scenic views.” An excerpt from Goal 5 of the JCCP highlighting these designated resources is provided in Attachment R-2.

Accordingly, the “Cove Palisades State Park” and the “Canyon walls of the Deschutes and Crooked Rivers” are listed as a significant or important scenic resources in Table R-2. Because no specific mapping is associated with the “Canyon walls of the Deschutes and Crooked Rivers,” this scenic resource is not mapped on Figures R-1 and R-2. However, views from representative locations within the Deschutes and Crooked River canyons are evaluated in Section R.5. The Cove Palisades State Park is shown on Figures R-1 and R-2 and analyzed in Section R.5. As described below in Section R.4.2.1, the Cove Palisades State Park is managed in accordance with the *Cove Palisades State Park Master Plan* and this plan identifies specific viewpoints within the park that should be considered as significant or important (OPRD, 2002).

R.4.2 State Land Management Plans

This section includes analysis of state land management plans that exist within the scenic resources analysis area, as listed in Table R-1.

R.4.2.1 The Cove Palisades State Park Master Plan (Oregon Parks and Recreation Department, 2002)

The majority of the Cove Palisades State Park boundary is located around Lake Billy Chinook approximately 3.6 miles southwest from the Facility site boundary and within the scenic resources analysis area. The nearest portion of the Cove Palisades State Park to the Facility site boundary is an isolated 64-acre area located approximately 3.1 miles to the south on the northwest slope of Round Butte (Figure R-1). While the JCCP identifies the Cove Palisades State Park as an outstanding scenic site in the scenic resources analysis area, the park is managed in accordance

with the *Cove Palisades State Park Master Plan* (OPRD, 2002). The plan was developed in accordance with Oregon Revised Statute (ORS) 390.180 for both the protection and public enjoyment of the park's resources (OPRD, 2002). The plan identifies appropriate recreational-related resource opportunities and constraints and applies scenic resource management objectives to designated important scenic resources. The following excerpt from page 111 (Chapter 10) of the plan is provided in Attachment R-2 and addresses Scenic Resource Management Objective A, which is intended to keep views from designated important viewpoints open (OPRD, 2002):

Keep views from viewpoints open. Trees and shrubs should be selectively removed or pruned to retain important views from established viewpoints. Important areas for retaining views include the two viewpoints along the east rim road, which are planned to remain open, selected views from the Peninsula Group Camp and views from the café at the Marina.

Based on Scenic Resource Management Objective A, the following viewpoints within the Cove Palisades State Park are considered important: Mountain View Drive Viewpoint 1, Mountain View Drive Viewpoint 2, Café at the Marina, and Peninsula Group Camp. Accordingly, these viewpoints are listed as significant or important scenic resources in Table R-2, shown on Figures R-1 and R-2, and analyzed in Section R.5.

R.4.2.2 Madras Mountain Views Scenic Bikeway Management Plan (Designated by the Oregon Parks & Recreation Department, 2013; and Managed by Jefferson County Chamber of Commerce, 2013)

The Madras Mountain Views Scenic Bikeway is a state designated scenic bikeway. The route starts and finishes in the City of Madras and follows an approximately 30-mile loop through farm fields in unincorporated Jefferson County and along the canyon rim of Lake Billy Chinook. At its nearest point, the route follows SW Belmont Lane approximately 2.5 miles south of the Facility site boundary. The route was nominated by local constituents, selected and designated by OPRD, and is managed under the *Madras Mountain Views Scenic Bikeway Management Plan* by the Jefferson County Chamber of Commerce (Jefferson County, 2013). The bikeway is not otherwise listed in a local, state, tribal, or federal land use management plan as a significant or important scenic resource. The management plan does not identify significant or important scenic resources or values within the scenic resources analysis area and is not included in Attachment R-2. However, under OAR 736-009-0030(7)(b), OPRD evaluates each scenic bikeway every five years and provides the designated management committee with results that may include "any significant changes to the route that would diminish its scenic qualities and the strength of the local proponent group." As such, the Madras Mountain Views Scenic Bikeway is listed as a potential significant or important scenic resource in Table R-1, shown on Figures R-1 and R-2, and is analyzed in Section R.5. Although the Applicant has studied potential impacts on this state designated scenic bikeway, the Applicant reserves the right to take the position that OAR 345-022-0080 does not require analysis of state designated scenic bikeways with respect to scenic resources.

R.4.3 Tribal Management Plans

R.4.3.1 Overview

This section provides an analysis of the tribal land management plan that exists within the scenic resources analysis area, as listed in Table R-1.

R.4.3.2 Management Plan (Confederated Tribes of the Warm Springs Reservation of Oregon, 1995)

The *Management Plan* (CTWSRO, 1995) is for the Tribal Council of the Confederated Tribes of the Warm Springs Reservation of Oregon. The plan defines and clarifies the relationships, roles, and responsibilities of units within the Tribal Organization, and defines the relationship between, purpose of, and responsibility for internal Tribal policies (CTWSRO, 1995). The *Management Plan* does not provide an inventory of scenic resources, or goals and policies related to protection of scenic resources. Therefore, the *Management Plan* is not addressed further in this analysis and no scenic resources associated with the CTWSRO are addressed herein.

R.4.4 Federal Land Management Plans

This section includes analysis of federal land management plans that exist within the scenic resources analysis area, as listed in Table R-1.

R.4.4.1 Record of Decision for the Land and Resource Management Plan for the Ochoco National Forest and Crooked River National Grassland (U.S. Forest Service, 1989a)

The Crooked River National Grassland is located within the scenic resources analysis area. At its nearest point, the mapped boundary of the Crooked River National Grassland is directly west of and adjacent to the Facility site boundary. The *Record of Decision for the Land and Resource Management Plan for the Ochoco National Forest and Crooked River National Grassland* (USFS, 1989a) (Crooked River ROD) summarizes the decisions and rationale for the selection of a Land and Resource Management Plan for the Ochoco National Forest and Crooked River National Grasslands. Page ROD-32 in the Scenic or Visual Resources section of the Crooked River ROD identifies “the canyon slopes viewable from Lake Billy Chinook Reservoir on the National Grassland” as a scenic resource located within the scenic resource analysis area (see Attachment R-2). This scenic resource is further identified below as the Lake Billy Chinook View Area. The Crooked River ROD does not provide specific goals or policies related to the protection or management of scenic resources. The Lake Billy Chinook View Area is listed as a significant or important scenic resource in Table R-2, shown on Figures R-1 and R-2, and analyzed in Section R.5.

R.4.4.2 Crooked River National Forest Land and Resource Management Plan (U.S. Forest Service, 1989)

The Crooked River National Grassland is located within the scenic resources analysis area. The *Crooked River National Forest Land and Resource Management Plan* (USFS, 1989b) (Grassland Plan) guides natural resource management activities and establishes management standards and guidelines for 16 distinct management areas within the Crooked River National Grassland. Table 4-2 of the Grassland Plan identifies each management area by resource emphasis. Of the 16 management areas within the Crooked River National Grassland, three management areas are allocated with a resource emphasis on scenic and visual quality. The Grassland Plan identifies “MA-G6 Crooked River Recreation Area” and “MA-G7 Deschutes River Scenic Corridor” as resources with an emphasis on “wild/scenic river.” Figure 4-7 in the Grassland Plan identifies the corridors associated with MA-G6 and MA-G7, respectively, and shows that these management areas are not within the scenic resources analysis area (USFS, 1989b). Therefore, the MA-G6 Crooked River Recreation Area and MA-G7 Deschutes River Scenic Corridor are not addressed further in this analysis.

The Grassland Plan identifies “MA-G13 Lake Billy Chinook View Area” as the only management area with a resource emphasis on “visuals.” The approximately 560-acre MA-G13 Lake Billy Chinook View Area is located within the scenic resources analysis area as shown on Figure 4-13 in the Grassland Plan (USFS, 1989b). The Lake Billy Chinook View Area is defined as: “the view area that can be seen from Lake Billy Chinook outside the Cove Palisades State Park and within the boundary of the Crooked River National Grassland” (see Attachment R-2). The standard and guideline for this visual resource is “retention” with the intent to maintain the natural appearing characteristics from the viewshed from Lake Billy Chinook and retain the undeveloped, natural appearing landscape with scenic qualities within the management area (USFS, 1989b).

Landscape Aesthetics: A Handbook for Scenery Management (USFS, 1995) defines retention as a measure for achieving a scenic integrity level of “High” where the landscape character appears intact and deviations may be present but are consistent with the form, line, and pattern common to the landscape. As described above, the Lake Billy Chinook View/Area is listed as a significant or important scenic resource in Table R-2. Figures R-1 and R-2 show the location and Section R.5 provides an analysis.

R.4.4.3 Lower Deschutes River Management Plan Record of Decision (U.S. Bureau of Land Management—Prineville District, Oregon, 1993)

As identified above in the JCCP, the lower segment of the Deschutes River (from Pelton Dam downstream to the north County line) is located within the scenic resources analysis area approximately 4.2 miles north of the Facility site boundary. In 1970, this segment of the river was designated as the Deschutes River Scenic Waterway Recreation Area and is a component of the

Oregon State Scenic Waterways System. In 1988, the same segment of the river was designated by the U.S. Congress as a National Wild and Scenic River. The 20,641 acres of land within the boundaries of the Lower Deschutes Wild and Scenic River are managed by the BLM in accordance with the *Lower Deschutes River Management Plan Record of Decision* (Lower Deschutes ROD) (BLM, 1993). Pursuant to ORS 390.934, the State of Oregon also adopts the Lower Deschutes ROD as the management document for the Deschutes River Scenic Waterway Recreation Area. The Lower Deschutes ROD does not provide specific goals or policies related to the management of scenic resources within the boundaries of the Lower Deschutes Wild and Scenic River. However, pages 5 and 9 of the Lower Deschutes ROD, generally state that on-site controls within the boundaries of the management area would be “compatible with the environment and aimed at protecting natural values and visual quality,” and that the plan was developed to “protect or enhance the outstanding remarkable values that caused the river to be designated” (BLM, 1993). Excerpts from pages 5 and 9 of the Lower Deschutes ROD are provided in Attachment R-2. Because of its state and federal designation as a scenic waterway, and because the river segment is incorporated in the Goal 5 inventory of the JCCP for its scenic designation, the Lower Deschutes Wild and Scenic River is listed as a significant or important scenic resource in Table R-2. Figures R-1 and R-2 show the location and Section R.5 provides an analysis.

R.5 SIGNIFICANT POTENTIAL ADVERSE IMPACTS

This section describes significant potential adverse impacts on scenic resources identified in the applicable local, state, and federal land management plans discussed in Section R.4 and listed in Table R-2. Table R-2 also indicates whether each scenic resource may potentially have views of the Facility and the subsequent degree of visual impact.

OAR 345-021-0010(1)(r)(C) *A description of significant potential adverse impacts to the scenic resources identified in (B), including, but not limited to, impacts such as:*

- (i) *Loss of vegetation or alteration of the landscape as a result of construction or operation; and*

Response: Although construction and operation of the Facility will result in the conversion of shrub-scrub habitat consisting of rabbitbrush with an understory of mixed native and invasive grasses within the Facility site boundary, the Facility’s footprint will not directly affect significant or important scenic resources identified in Table R-2 in Section R.5.1 below. As demonstrated throughout this Application for Site Certificate, the Facility has been sited specifically to avoid, minimize, and mitigate for potential adverse visual impacts resulting from the loss of existing vegetation and necessary alteration of landscape.

R.5.1 Overview

As described in Exhibit B, the Facility’s major components, structures, and systems are proposed in Jefferson County. These include the solar modules, inverters, and transformers. The related or supporting facilities proposed within Jefferson County include the underground collection cables, a generator step-up transformer and substation, a control house, internal service roads, a main access road, the POI where the transmission line interconnects with the existing electrical grid, and additional temporary construction areas such as staging areas and, potentially, a temporary batch plant. The maximum height of the H-frame poles that will hold the overhead cables connecting the substation to the POI is approximately 80 feet. The maximum height of the inverters and transformers will be approximately 10 feet tall. The solar array modules will be approximately 8 feet tall when fully rotated.

The existing overhead transmission line is supported by a combination of steel towers and wood H-frame structures. The structures range in height from approximately 70 to 135 feet and are spaced approximately 600 feet apart, and vary depending on site conditions.

Table R-2. Scenic Resources Identified in Applicable Local, State, Tribal, and Federal Land Use and Management Plans that Pertain to Lands within 10 Miles of the Facility Site Boundary

Scenic Resource ^a	Managing Jurisdiction	Plan Where Scenic Resource is Identified	Nearest Approximate Distance (Miles) and Direction from Facility Site Boundary	Is Facility Potentially Visible?	Analysis Results
Lower Deschutes River – from Pelton Dam downstream to the north County line Deschutes River Scenic Waterway Recreation Area Lower Deschutes Wild and Scenic River	Jefferson County/BLM	<i>Jefferson County Comprehensive Plan</i> (Jefferson County, 2006) <i>Lower Deschutes River Management Plan Record of Decision</i> (BLM, 1993)	4.2 – North	Yes – unlikely, and only at approximately 5 miles from the Facility along a 0.2-mile-long section of Bureau of Indian Affairs (BIA) Road 24, and along an approximately 400-foot-section of the river at river level.	No significant potential adverse impacts to the scenic resource – appearance likely blended or muted with surrounding elements and nearly undetectable in the background of views toward the horizon along the plateau of the proposed Facility site.
Madras Mountain Views Scenic Bikeway	OPRD/ Jefferson County	<i>Madras Mountain Views Scenic Bikeway Management Plan</i> (OPRD, 2013)	2.5 – South	Yes – minimally and only from intermittent points along a 1.7-mile section of SW Belmont Lane.	No significant potential adverse impacts to the scenic resource – appearance screened from the road by existing juniper forest in the foreground and weak visual contrast where the Facility may be visible in the middleground of views toward the Facility.
The Cove Palisades State Park	OPRD	<i>Jefferson County Comprehensive Plan</i> (Jefferson County, 2006) <i>The Cove Palisades State Park Master Plan</i> (OPRD, 2002) <i>Crooked River National Forest Land and Resource Management Plan</i> (USFS, 1989b)	3.1 – South	Yes – only from an isolated 64-acre area located approximately 3.1 miles south of the Facility that is not designated as a significant or important viewpoint.	No significant potential adverse impacts to the scenic resource – no visibility from designated important viewpoints in the park. Potential visibility only occurs in the middleground of views from a portion of the park that is not identified for scenic resource management.
Canyon walls of Deschutes and Crooked Rivers	Jefferson County	<i>Jefferson County Comprehensive Plan</i> (Jefferson County, 2006)	0.4 – North, West, South	Yes – unlikely, and only from isolated areas upland of the rim forming the canyon walls. No visibility along roadways or at water level within the canyons.	No significant potential adverse impacts to the scenic resource – no visibility or impact along roadways or at water level. Potential views from isolated upland areas are likely blended or muted with surrounding elements and nearly undetectable in the background of views toward the Facility.
Lake Billy Chinook View Area	USFS	<i>Record of Decision for the Land and Resource Management Plan for the Ochoco National Forest and Crooked River National Grassland</i> (USFS, 1989a)	5.8 – Southwest	No	No impact.

Table R-2. Scenic Resources Identified in Applicable Local, State, Tribal, and Federal Land Use and Management Plans that Pertain to Lands within 10 Miles of the Facility Site Boundary

Scenic Resource ^a	Managing Jurisdiction	Plan Where Scenic Resource is Identified	Nearest Approximate Distance (Miles) and Direction from Facility Site Boundary	Is Facility Potentially Visible?	Analysis Results
		<i>Crooked River National Forest Land and Resource Management Plan</i> (USFS, 1989b)			

Notes

^a In accordance with OAR 345-021-0010(1)(r)(B), resources identified in local, state, and federal management plans as significant or important based on their scenic qualities are analyzed in this Exhibit. Two of the eight management plans reviewed for this Exhibit are state management plans. Although the Applicant has studied potential impacts on scenic resources identified in state land use and management plans within the scenic resources analysis area, the Applicant reserves the right to take the position that OAR 345-022-0080 does not require analysis of state land use and management plans with respect to scenic resources.

^b Approximate distances provided are measured from the Facility site boundary to the nearest point of the scenic resource located within the jurisdiction that identifies the resource in its local, state, or federal land use or management plan.

^c Potential visibility is determined through viewshed analysis, as outlined in Section R.2. Visibility of a specific scenic resource is only analyzed within the jurisdiction that lists that resource in its local, state, or federal land use or management plan.

R.5.2 Loss of Vegetation

The area within the Facility site boundary consists of shrub-scrub habitat consisting of rabbitbrush with an understory of mixed native and invasive grasses. A small area of woody wetland habitat occurs just outside the northern edge of the Facility site boundary adjacent to Willow Creek. This habitat is generally characterized by juniper forest and rocky areas devoid of vegetation. Areas along the northern and eastern perimeter of the Facility site boundary are characterized by steep, rocky cliffs that are also largely devoid of vegetation. Exhibit J confirms that no wetlands exist in the Facility site boundary. Impacts on existing vegetation will be almost exclusively on non-native grasses. Construction of the Facility will require some ground preparation and limited grading within the Facility site boundary. The temporary disturbance areas will be revegetated in accordance with the *Revegetation Plan* (Attachment P-6 in Exhibit P). In addition, the solar array modules will be installed over the cleared and graded areas to cover evidence of grading activities. The solar array layout will not preclude revegetation of cleared and graded areas between the tracked rows of solar modules. Therefore, to the extent that the predominantly non-native grass vegetation within the Facility site boundary is visible from surrounding viewsheds, significant adverse impacts on scenic resources associated with the loss of existing vegetation will not occur as a result of the Facility.

R.5.3 Alteration of Landscape

Construction and operation of the Facility will not alter the existing landscape in a way that will adversely affect views toward the Facility from the identified scenic resources listed in Table R-2. The limited grading associated with construction will not result in significant modifications to existing landforms within the Facility site boundary. From most vantage points, the Facility is screened by existing juniper forest in foreground views. In addition, the Facility will comply with Section 412 (Scenic and Natural Hazard Rim Set Back) of the Jefferson County Zoning Ordinance (JCZO) which requires a 30-foot setback from the rim edge of steep slopes such as the walls of Willow Creek Canyon located along the northern and eastern perimeter of the Facility site boundary (see Exhibit K).

As discussed below, the Facility will add photovoltaic solar power generation infrastructure to the landscape. The Facility will primarily be visible to motorists approaching the Facility from the south on NW Elk Drive. The Facility may also be visible from active farming operations within approximately 2 miles north of the site on the opposite side of Willow Creek Canyon, and from

grassland/rangeland activities that may occur within 1 mile south of the Facility site boundary. However, the Facility elements described in Exhibit B and summarized in Section R.5.1 will not dominate the viewed landscape. The existing transmission lines described above in Section R.1 are the visually prominent developed features of the landscape (USFS, 1989b) and are a focal point of views toward the Facility. With a maximum anticipated height of 10-feet for Facility components, the Facility will be well under the height of existing transmission lines in utility corridors located adjacent to the site and crossing the Facility site boundary. As such, the Facility's presence on the plateau above Lake Simtustus will not detract from the existing landscape setting described in Section R.1.

As was observed by the Applicant's visual resource specialist during the field visit, existing screening in the form of varying topography adjacent to the surrounding roads, vegetation, and structures blocks many views of the Facility except in certain locations directly adjacent to the Facility site boundary. For example, vegetated bluffs and elevated contours along the existing railroad line screen west-facing views from the City of Madras toward the Facility.

Although certain portions of the Facility may be visible within the existing landscape, the Facility will not result in significant alteration to the landscape. Furthermore, the Facility will not detract from the settings of the scenic resources listed in Table R-2. Therefore, significant adverse impacts on scenic resources associated with the alteration of landscape will not occur as a result of the Facility.

R.5.4 Visual Impacts

(ii) Visual impacts of facility structures or plumes.

Response: This section provides analysis of potential adverse impacts that may result from construction and operation of the Facility on scenic resources shown on Figure R-1 and listed in Table R-2. Figure R-2 shows the ZVI viewshed analysis and locations where photographs were taken from the identified significant or important scenic resources toward the Facility site boundary. Attachment R-1 contains photographs taken from the locations shown on Figure R-2. Each photograph includes a descriptive caption of the viewshed shown. The Facility will not generate emissions plumes and no visual impacts from plumes will result from the construction and operation of the Facility. This analysis concludes that construction and operation of the Facility will not result in significant adverse impacts on the scenic resources listed in Table R-2.

R.5.4.1 Lower Deschutes River, Wild and Scenic River (from Pelton Dam Downstream to the North County Line)

The nearest portion of the management area boundary for the Lower Deschutes Wild and Scenic River is located approximately 4.2 miles north of the Facility site boundary (Figure R-1). The ZVI viewshed analysis provided on Figure R-2 shows that the Facility could only be visible to motorists and boaters from a small area within the Lower Deschutes Wild and Scenic River boundary. The area of potential visibility is approximately 5 miles from the Facility site boundary along an approximately 0.2-mile-long section of BIA Road 24, and along an approximately 400-foot-section of the river at river level. The majority of views from the Lower Deschutes Wild and Scenic River toward the Facility are precluded by the existing elevation and topography of the river canyon.

Photograph R-1 at Photo Survey Point R-1 was taken from the northbound shoulder of BIA Road 24 and shows a view with potential visibility of the Facility from the mapped boundary of the Lower Deschutes Wild and Scenic River (see Attachment R-1). Photograph R-1 shows the Facility location on the plateau that forms the horizon in the background of the viewshed. At this distance, the Facility will appear obscured or may be undetectable in the surrounding landscape. The existing transmission lines are described in Section R.1 as the visually prominent developed features of the landscape (USFS, 1989b); however, these transmission lines are not visible in Photograph R-1. Since the Facility will be well under the height of the existing transmission lines located adjacent to the site and crossing the Facility site boundary, it is unlikely that the solar array will be visible from the Lower Deschutes Wild and Scenic River. Should any portion of the Facility be visible from this location, it will appear blended or muted with surrounding elements in the landscape.

As described in Exhibit K, the Facility will also comply with Section 412 (Scenic and Natural Hazard Rim Set Back) of the JCZO which requires a 30-foot setback from the rim edge of steep slopes such as the walls of Willow Creek Canyon located along the northern and eastern perimeter of the Facility site boundary. Compliance with this setback will further obscure views of the Facility and will maintain consistency with JCCP Policies 6.2 and 7.2 identified above. Therefore, the Facility will not result in significant potential adverse impacts to scenic qualities of views from Lower Deschutes Wild and Scenic River. Neither monitoring nor mitigation is proposed.

R.5.4.2 Madras Mountain Views Scenic Bikeway

At its nearest point, the Madras Mountain Views Scenic Bikeway route follows SW Belmont Lane approximately 2.5 miles south of the Facility site boundary (Figure R-1). Although this analysis studies potential impacts on this state designated scenic bikeway herein, the Applicant reserves the right to take the position that OAR 345-022-0080 does not require analysis of state designated scenic bikeways with respect to scenic resources.

The ZVI viewshed analysis provided on Figure R-2 shows that the Facility could be visible to cyclists from intermittent locations along a 1.7-mile section of SW Belmont Lane. This length of SW Belmont Lane is about 6 percent of the overall 30-mile route. The Applicant's visual resource specialist drove the 1.7-section of the route on SW Belmont Lane within the scenic resources analysis area during the visual resources site visit and verified that the Facility may only be visible from intermittent locations along the bikeway. Views towards the Facility are screened by up to 2 miles of existing juniper forest in foreground views from most vantage points on SW Belmont Lane. In addition, cyclists on SW Belmont Lane are traveling in an east-west direction and the dominant landscape feature along the route is Mount Jefferson to the west. There are no scenic waysides or marked rest locations along this portion of the route.

Photograph R-2 at Photo Survey Point R-2 was taken from the westbound shoulder of SW Belmont Lane along the route of the Madras Mountain Views Scenic Byway facing the Facility site boundary. Photograph R-2 shows a typical view from SW Belmont Lane and existing juniper forest in the foreground that completely screens views of the Facility.

Photograph R-3 at Photo Survey Point R-3 was taken from the intersection of SW Belmont Lane and SW Elk Drive along the route of the Madras Mountain Views Scenic Byway facing the Facility site boundary. Photograph R-3 shows the only view from SW Belmont Lane where the Facility will likely be visible in the middleground in views toward the end of NW Elk Drive. The Facility is only visible for an approximately 80-foot segment of the intersection and is then screened again by juniper forest. At this distance, the solar array may be visible and will appear similar to a dark geometric outline or shadow with a low profile on the landscape. The Facility components will lack definition and detail and will not dominate the existing landscape.

Photograph R-4 at Photo Survey Point R-4 was also taken from the westbound shoulder of SW Belmont Lane along the route of the Madras Mountain Views Scenic Byway facing the Facility site boundary. Photograph R-3 shows another typical view from SW Belmont Lane and existing juniper forest in the foreground that completely or partially screens views of the Facility.

Photographs R-2 through R-4 show a range of views toward the Facility from intermittent locations along the approximately 1.7-mile section of SW Belmont Lane where cyclists will likely have both obstructed and unobstructed views toward the Facility. The existing transmission lines are described in Section R.1 as the visually prominent developed features of the landscape (USFS, 1989b); however, these transmission lines are not visible in Photographs R-2 through R-4. From these viewpoints, the Facility may be discernible but will not be a substantial or prominent feature within the viewshed. Furthermore, any potential views of the Facility will be brief in duration and will only occur while looking north toward the Facility site boundary from intermittent locations. Therefore, the Facility will not result in significant potential adverse impacts to scenic qualities of views from the Madras Mountain Views Scenic Byway. Neither monitoring nor mitigation is proposed.

R.5.4.3 The Cove Palisades State Park

As described above, the majority of the Cove Palisades State Park boundary is located around Lake Billy Chinook approximately 3.6 miles southwest from the Facility site boundary and within

the scenic resources analysis area. The ZVI viewshed analysis on Figure R-2 shows that the Facility is not visible from areas within the park boundary surrounding Lake Billy Chinook. The Facility is only potentially visible from an isolated 64-acre area of the park located approximately 3.1 miles south of the Facility (Figure R-1). However, this isolated area is not designated as an important viewpoint in the park and is not analyzed further.

Based on Scenic Resource Management Objective A in the *Cove Palisades State Park Master Plan* (OPRD, 2002), the following viewpoints are considered important: Mountain View Drive Viewpoint 1, Mountain View Drive Viewpoint 2, Café at the Marina, and Peninsula Group Camp.

Photograph R-5 at Photo Survey Point R-5 was taken from Mountain View Drive Viewpoint 1 located off SW Mountain View Drive and within the mapped boundary of the Cove Palisades State Park facing the Facility site boundary. Photograph R-5 shows that views of the Facility site from Mountain View Drive Viewpoint 1 are precluded by existing elevation and topography. The Facility will not result in significant potential adverse impacts to scenic qualities of views from Mountain View Drive Viewpoint 1.

Photograph R-6 at Photo Survey Point R-6 was taken from Mountain View Drive Viewpoint 2 located off SW Mountain View Drive and within the mapped boundary of the Cove Palisades State Park facing the Facility site boundary. Photograph R-6 shows that views of the Facility site from Mountain View Drive Viewpoint 2 are also precluded by existing elevation and topography. The Facility will not result in significant potential adverse impacts to scenic qualities of views from Mountain View Drive Viewpoint 2.

Photograph R-7 at Photo Survey Point R-7 was taken from the entrance to the marina and Upper Deschutes Day Use Area within the mapped boundary of the Cove Palisades State Park facing the Facility site boundary. Photograph R-7 shows that views of the Facility site from the marina and Upper Deschutes Day Use Area are also precluded by existing elevation and topography. The Facility will not result in significant potential adverse impacts to scenic qualities of views from the marina and Upper Deschutes Day Use Area. Photo Survey Point R-7 also serves as a proxy location for the Café at the Marina and Peninsula Group Camp. Figure R-2 shows that Café at the Marina and Peninsula Group Camp are located within the canyon surrounding Lake Billy Chinook and are therefore precluded from views toward the Facility. Photograph R-7 demonstrates that any view toward the Facility from within the canyon at the Cove Palisades State Park will be precluded by existing elevation and topography. The Facility will not result in significant potential adverse impacts to scenic qualities of views from Café at the Marina and Peninsula Group Camp.

Photograph R-8 at Photo Survey Point R-8 was taken from the Tam-A-Lau Trail on the plateau of the peninsula within the mapped boundary of the Cove Palisades State Park facing the Facility site boundary. While not designated as a significant scenic or important scenic resource, the crest of the Tam-A-Lau Trail offers sweeping views from the Cove Palisades State Park toward the Facility site. Figure R-2 and Photograph R-8 show that even at a higher elevation along the rim of the peninsula within the park, views toward the Facility are precluded by existing elevation and topography. The Facility will not result in significant potential adverse impacts to scenic qualities of views from the Cove Palisades State Park.

Based on the above, the Facility will not result in significant potential adverse impacts to scenic qualities of views designated as important in the Cove Palisades State Park. Neither monitoring nor mitigation is proposed.

R.5.4.4 Canyon Walls of Deschutes and Crooked Rivers

The JCCP identifies the “Canyon walls of the Deschutes and Crooked Rivers” as significant or important scenic resources within the scenic resource analysis area. Photographs R-9 through R-12 provide typical views from accessible locations at overlooks, pullouts, and a designated wilderness area to review potential views of the Facility in relation to canyon walls of the Deschutes and Crooked Rivers.

Photograph R-9 at Photo Survey Point R-9 was taken from the platform at the Round Butte Overlook Park Interpretive Center facing toward the Facility site boundary. While the Round Butte Overlook Park is maintained by Portland General Electric (PGE) and is not identified in local, state, tribal, or federal management plans as a significant or important scenic resource, the viewing platform provides views of the canyon walls of the Deschutes River east of Lake Billy

Chinook toward the Facility site. The Round Butte Overlook Park Interpretive Center is approximately 4.4 miles southwest of the Facility site boundary and offers the nearest publicly accessible viewing platform of the canyon walls. Photograph R-9 shows that views of the canyon walls of the Deschutes River east of Lake Billy Chinook are not obstructed or impacted by the Facility site. The Facility is precluded from view by existing elevation and topography.

Photograph R-10 at Photo Survey Point R-10 was taken from a shoulder pullout on SW Jordan Road adjacent to the Crooked River's inlet to Lake Billy Chinook facing toward the Facility site boundary. Photograph R-10 shows that views of the Facility site from nearby publicly accessible views of the canyon walls of the Deschutes River east of Lake Billy Chinook are precluded by existing elevation and topography. Photograph R-10 shows that views of the canyon walls of the Crooked River and Lake Billy Chinook are not obstructed or impacted by the Facility site. The Facility is precluded from view by existing elevation and topography.

Photograph R-11 at Photo Survey Point R-11 was taken from a shoulder pullout on SW Jordan Road adjacent to the Deschutes River's inlet to Lake Billy Chinook facing toward the Facility site boundary. Photograph R-11 shows that views of the canyon walls of the Deschutes River and Lake Billy Chinook are not obstructed or impacted by the Facility site. The Facility is precluded from view by existing elevation and topography.

Photograph R-12 at Photo Survey Point R-12 was taken from a portion of the Deschutes Canyon – Steelhead Falls Wilderness Study Area accessible from the northbound shoulder of SW Jordan Road and adjacent to the Deschutes River's inlet to Lake Billy Chinook. While the Deschutes Canyon – Steelhead Falls Wilderness Study Area is not identified in local, state, tribal, or federal management plans as a significant or important scenic resource, the area provides views of the canyon walls of the Deschutes River east of Lake Billy Chinook toward the Facility site from a higher elevation than Photograph R-11. In this view, the Facility is also precluded from view by existing elevation and topography.

Based on the above, the Facility will not result in significant potential adverse impacts to scenic qualities associated with canyon walls of the Deschutes and Crooked Rivers. The Facility will not obstruct views or visibility of canyon walls from along roadways or at water level within the canyons. Potential views of the Facility from isolated upland areas above the canyons will likely be blended or muted with surrounding elements and nearly undetectable in the background of views toward the Facility. Neither monitoring nor mitigation is proposed.

R.5.4.5 Lake Billy Chinook View Area

The approximately 560-acre MA-G13 Lake Billy Chinook View Area is located approximately 5.8 miles southwest of the Facility site boundary within the scenic resources analysis area (Figure R-1). The Lake Billy Chinook View Area is defined as: "the view area that can be seen from Lake Billy Chinook outside the Cove Palisades State Park and within the boundary of the Crooked River National Grassland" (see Attachment R-2). The ZVI viewshed analysis provided on Figure R-2 shows that the Facility is not visible from the Lake Billy Chinook View Area. Furthermore, the intent of the scenic management area is to retain views facing south toward the canyon slopes viewable from Lake Billy Chinook and away from the Facility site. At water level and facing south, the Facility will not be visible. Therefore, the Facility will not result in significant potential adverse impacts to scenic qualities of views from the MA-G13 Lake Billy Chinook View Area. Neither monitoring nor mitigation is proposed.

R.5.5 Glare Impacts

The Facility is designed to generate power through the absorption of sunlight, resulting in limited reflectivity (glare) that may be visible within the scenic resources analysis area. Viewed collectively from a distance at similar elevations, the limited reflectivity of the solar modules may contribute to an overall appearance of a dark line on the horizon. In closer-in views, modules will be discernible, but they are unlikely to be visible or substantial sources of glint or glare. The solar modules are tracking, which means that they will rotate as the sun's angle changes. This, combined with the fact that most modern solar modules employ antireflective (AR) coating, which is designed to nearly eliminate the reflection of sunlight off the module face, will result in minimized glare. A typical human eye reacts to light wavelengths from 390 to 700 nanometers (nm) and, in that spectrum, the AR-coated glass typical of most solar modules will have a high-level transmittance of at least 93.3 percent. Transmittance is the percentage of radiation (light)

that travels through a surface. Such a high level of transmittance is valuable because it means that more light is traveling through the glass and onto the photovoltaic cells, rather than reflecting off the surface. With transmittance values higher than a body of water or a glass window without an AR coating, the potential for glare is lower for modules compared to other surfaces, such as Lake Billy Chinook, which is visible within the scenic resources analysis area.

Other Facility components, such as the inverter boxes, will be located south of the solar module arrays away from US Highway 26 and do not feature reflective surfaces. The Applicant has also secured No Hazard Determinations from the Federal Aviation Administration documenting the agency's position that operation of the Facility will not result in glare that will adversely affect aircraft (Holmquist, pers. comm., 2019). The No Hazard Determinations are provided in Attachment E-1 to Exhibit E.

R.5.6 Conclusion

The Facility structures will be visible from a small portion of the Cove Palisades State Park that is not designated as a significant or important viewpoint, and may be potentially visible from isolated intermittent locations along the Madras Mountain Views Scenic Bikeway and Lower Deschutes Wild and Scenic River, which are identified as scenic resources in Table R-2. The Facility will not be visible from other scenic resources listed in Table R-2. Both the Cove Palisades State Park and Madras Mountain Views Scenic Bikeway are located 2.5 miles or more from the Facility site boundary. Given this distance, the nature of the topography of the existing landscape, the screening role of vegetation, and the Facility's limited visibility from the park, bikeway, and river, the proposed Facility will not result in significant adverse impacts on scenic resources.

R.6 MITIGATION

OAR 345-021-0010(1)(r)(D) *The measures the applicant proposes to avoid, reduce or otherwise mitigate any significant adverse impacts.*

Response: No significant adverse impacts on designated significant or important scenic resource areas will result from Facility design, construction, and operation. Therefore, no measures are proposed to avoid, reduce, or otherwise mitigate Facility impacts.

R.7 MAPS OF SCENIC RESOURCES

OAR 345-021-0010(1)(r)(E) *A map or maps showing the location of the scenic resources described under (B).*

Response: The scenic resources analysis area consists of the area in the Facility site boundary and the area within 10 miles of the Facility site boundary. The following figures are provided:

- Figure R-1 shows the significant or important scenic resources within the scenic resources analysis area as identified on applicable local, state, and federal land management plans.
- Figure R-2 shows the potential visibility of the Facility based on the ZVI analyses conducted for the site. Figure R-2 also shows the locations where photographs were taken from the identified significant or important scenic resources in areas with the greatest potential visibility toward the Facility site boundary.

Attachment R-1 contains photographs taken from the locations shown on Figure R-2 toward the Facility site boundary. Each photograph includes a descriptive caption of the viewshed shown on each photograph.

R.8 MONITORING

OAR 345-021-0010(1)(r)(F) *The applicant's proposed monitoring program, if any, for impacts to scenic resources.*

Response: Because the Facility will not result in significant adverse impacts on scenic and aesthetic values within the scenic resources analysis area, the Applicant does not propose an active monitoring program specific to impacts on scenic and aesthetic values. With respect to the Applicant's efforts to incorporate design measures intended to minimize potential glare and reflectivity from the Facility's solar arrays, no ongoing monitoring is proposed.

R.9 SUMMARY

The Facility will comply with the applicable regulatory guidelines concerning scenic and aesthetic resources as discussed in the foregoing responses to the criteria contained in OAR 345-021-0010(1)(r)(A) through (F). Based on the foregoing information, the Applicant has satisfied the requirements of OAR 345-021-0010(1)(r) and demonstrated that the design, construction, and operation of the Facility will not result in significant adverse impacts on scenic resources and values within the scenic resources analysis area. Accordingly, the Energy Facility Siting Council may find that the standards contained in OAR 345-022-0080 have been satisfied.

R.10 REFERENCES

Bureau of Land Management (BLM). 1993. *Lower Deschutes River Management Plan Record of Decision*. United States Department of Interior. February. Accessed July 2019.

[https://eplanning.blm.gov/epl-front-office/projects/nepa/55145/66709/72555/19930200_Lower_Deschutes_River_Mgmt_Plan_ROD_\(1993\).pdf](https://eplanning.blm.gov/epl-front-office/projects/nepa/55145/66709/72555/19930200_Lower_Deschutes_River_Mgmt_Plan_ROD_(1993).pdf).

City of Madras. 2003. *City of Madras Comprehensive Plan*. Amended in 2018. Accessed July 2019.

https://www.ci.madras.or.us/sites/default/files/fileattachments/community_development/page/1641/city_of_madras_comprehensive_plan.pdf.

Confederated Tribes of the Warm Springs Reservation of Oregon (CTWSRO). 1995. *Management Plan*. May 8. Accessed July 2019. <https://warmsprings-nsn.gov/treaty-documents/the-management-plan/>.

Holmquist, Paul, Federal Aviation Administration. 2019. Personal communication (email) with Heloise Hedlund, Ecoplexus Inc. September 11.

Jefferson County. 2006. *Jefferson County Comprehensive Plan*. Amended 2013. Accessed July 2019.

https://www.jeffco.net/sites/default/files/fileattachments/community_development/page/3341/comprehensive_plan_05_22_13_ord_o-060-13.pdf.

Jefferson County Chamber of Commerce. 2013. *Madras Mountain Views Scenic Bikeway Management Plan*. Accessed July 2019. <https://digital.osl.state.or.us/islandora/object/osl:11903>.

Oregon Parks and Recreation Department (OPRD). 2002. *The Cove Palisades State Park Master Plan*. Accessed July 2019. <http://library.state.or.us/repository/2012/201211140801363/index.pdf>.

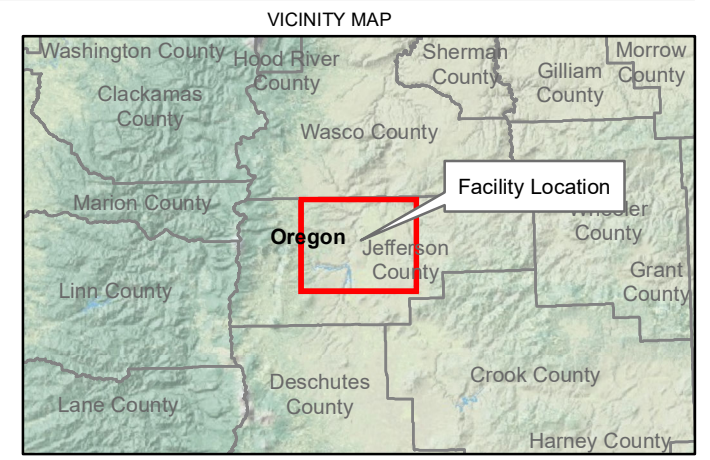
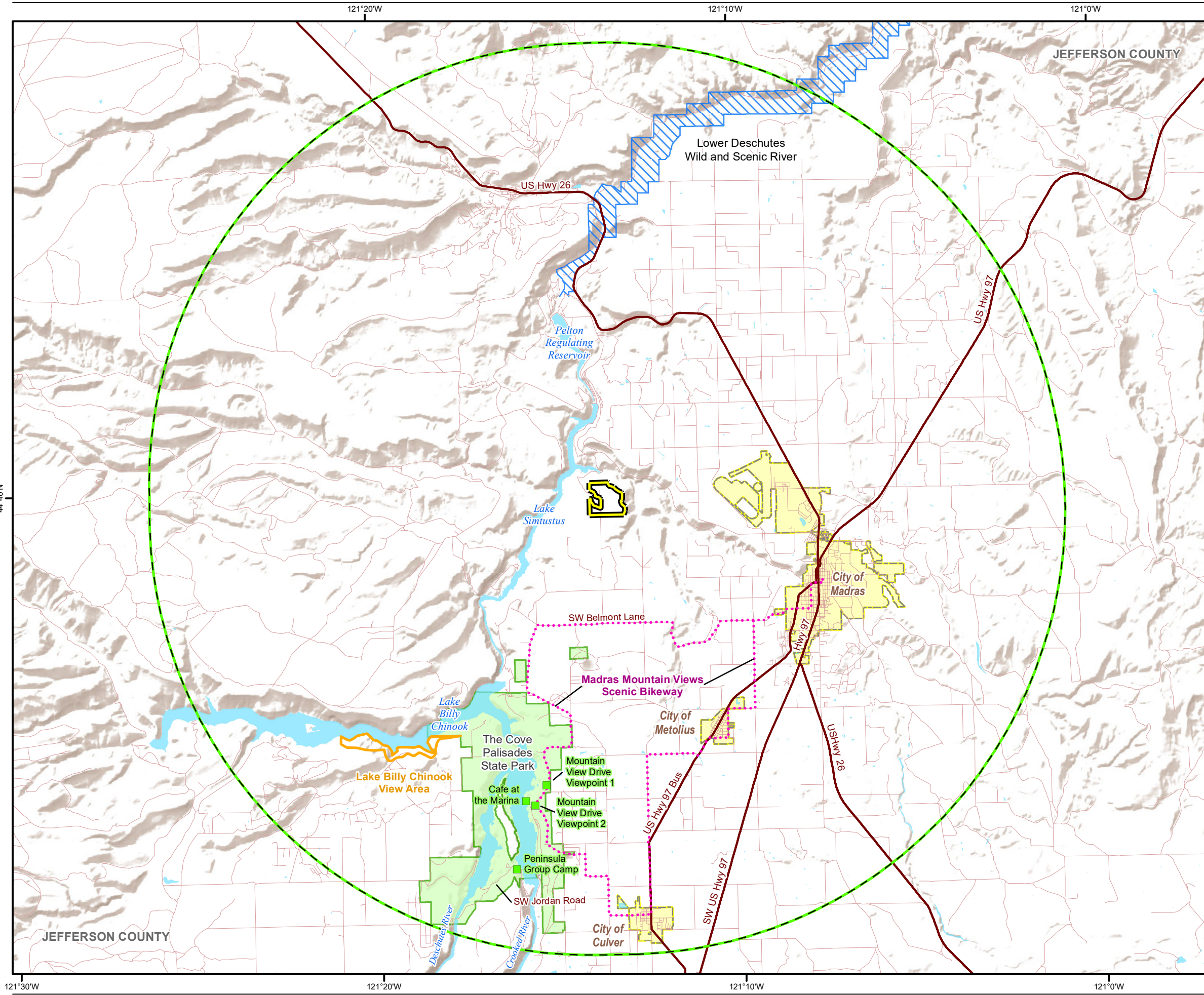
U.S. Department of Agriculture Forest Service (USFS). 1989a. *Record of Decision for the Land and Resource Management Plan for the Ochoco National Forest and Crooked River National Grassland*. Accessed July 2019.

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3797078.pdf.

U.S. Department of Agriculture Forest Service (USFS). 1989b. *Crooked River National Forest Land and Resource Management Plan*. Accessed July 2019.

<https://www.fs.usda.gov/detail/ochoco/landmanagement/planning/?cid=stelprd3808740>.

Figures



- LEGEND**
- Madras Solar Energy Facility Site Boundary
 - Scenic Resources Analysis Area (10 miles)
 - City Limits
 - Major Highway
 - Existing Road
 - Waterbody
 - Significant and Important Scenic Resources**
 - National Wild and Scenic River
 - Madras Mountain Views Scenic Bikeway
 - State Park
 - State Park – Designated Important Viewpoint
 - Lake Billy Chinook View Area

44°40'N

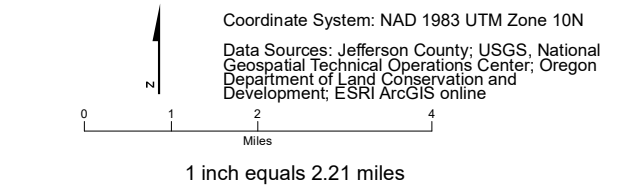
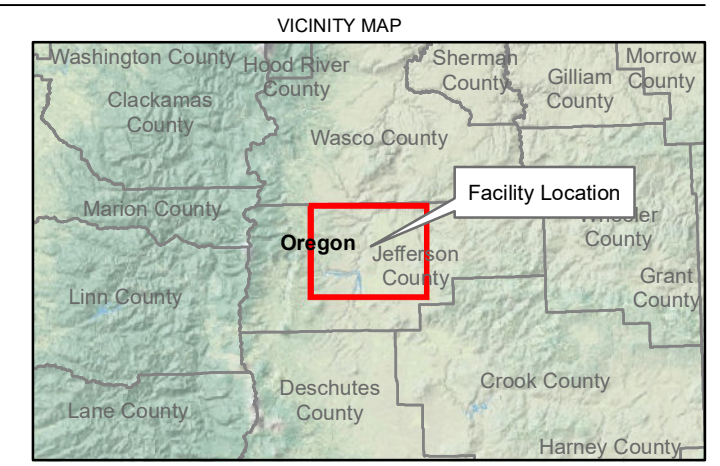
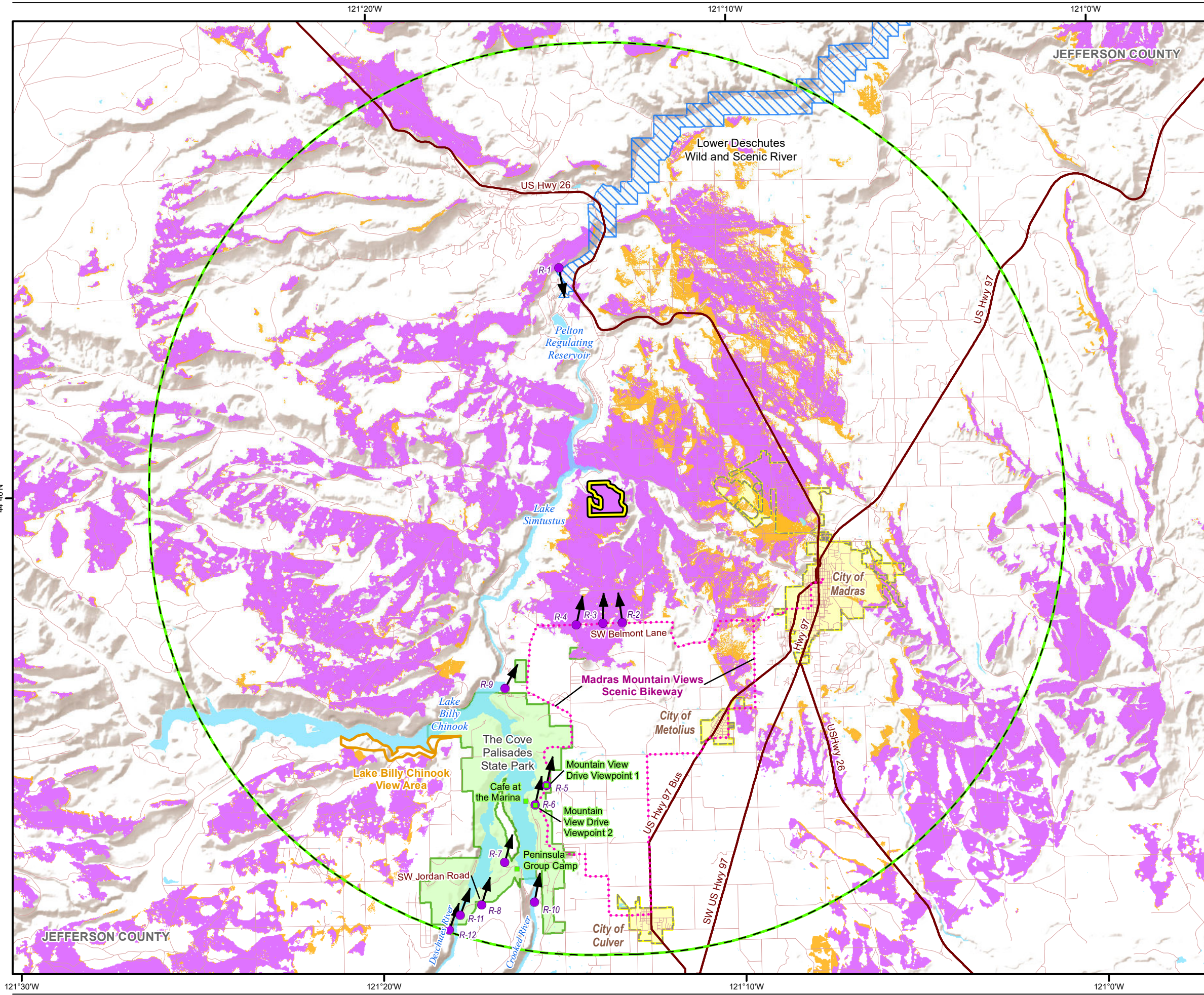


Figure R-1
 Significant and Important Scenic Resources
 within 10 miles of the Facility Site Boundary
 Application for Site Certificate
 Madras Solar Energy Facility
 Jefferson County, OR





- LEGEND**
- Madras Solar Energy Facility Site Boundary
 - Scenic Resources Analysis Area (10 miles)
 - City Limits
 - Major Highway
 - Existing Road
 - Waterbody
- Significant and Important Scenic Resources**
- National Wild and Scenic River
 - Madras Mountain Views Scenic Bikeway
 - State Park
 - State Park – Designated Important Viewpoint
 - Lake Billy Chinook View Area
- Potential Visibility**
- Zone of Visual Influence (ZVI): Potential Visibility of the Facility
 - ZVI: Potential Visibility of Only the Facility Substation and Point of Interconnection (Pad-Mounted Inverters and Transformers not visible)
 - Photo Survey Point

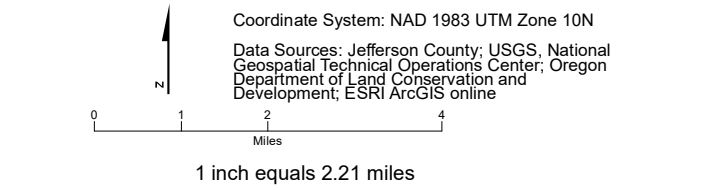


Figure R-2
 Potential Visibility and Photo Survey Points
 within 10 miles of the Facility Site Boundary
 Application for Site Certificate
 Madras Solar Energy Facility
 Jefferson County, OR

Attachment R-1
Existing Conditions Photographs

Project Title	Madras Solar Energy Facility
Location	Jefferson County, Oregon (see Figure R-2, Potential Visibility and Photo Survey Points within 10 Miles of the Facility Site Boundary)
Date	Photographs taken on July 1 and 2, 2019

Lower Deschutes River, Wild and Scenic River (from Pelton Dam downstream to the north County line)



Photograph R-1 – From Photo Survey Point R-1 on Figure R-2: View from the northbound shoulder of Bureau of Indian Affairs (BIA) Road 24 within the mapped boundary of the Lower Deschutes Wild and Scenic River (north of the Pelton Dam and downstream of the County line) heading approximately 170° S toward the Facility site boundary. (The red arrow indicates the approximate location of the Facility site about 5 miles south of Photo Survey Point R-1.)

Madras Mountain Views Scenic Bikeway

Photograph R-2 – From Photo Survey Point R-2 on Figure R-2: View from the westbound shoulder of SW Belmont Lane along the route of the Madras Mountain Views Scenic Byway heading approximately 355° N toward the Facility site boundary. (The red arrow indicates the approximate location of the Facility site about 2.5 miles north of Photo Survey Point R-2.)



Photograph R-3 – From Photo Survey Point R-3 on Figure R-2: View from the intersection of SW Belmont Lane and SW Elk Drive along the route of the Madras Mountain Views Scenic Byway heading due north toward the Facility site boundary. (The red arrow indicates the approximate location of the Facility site about 2.5 miles north of Photo Survey Point R-3.)



Photograph R-4 – From Photo Survey Point R-4 on Figure R-2: View from the westbound shoulder of SW Belmont Lane along the route of the Madras Mountain Views Scenic Byway heading approximately 15° N toward the Facility site boundary. (The red arrow indicates the approximate location of the Facility site about 2.5 miles north of Photo Survey Point R-4.)

The Cove Palisades State Park



Photograph R-5 – From Photo Survey Point R-5 on Figure R-2: View from Mountain View Drive Viewpoint 1 located off SW Mountain View Drive and within the mapped boundary of the Cove Palisades State Park heading approximately 10° N toward the Facility site boundary. (The red arrow indicates the approximate location of the Facility site about 6.2 miles north of Photo Survey Point R-5.)



Photograph R-6 – From Photo Survey Point R-6 on Figure R-2: View from Mountain View Drive Viewpoint 2 located off SW Mountain View Drive and within the mapped boundary of the Cove Palisades State Park heading approximately 15° N toward the Facility site boundary. (The red arrow indicates the approximate location of the Facility site about 6.7 miles north of Photo Survey Point R-6.)



Photograph R-7 – From Photo Survey Point R-7 on Figure R-2: View from the entrance to the marina and Upper Deschutes Day Use Area within the mapped boundary of the Cove Palisades State Park heading approximately 15° N toward the Facility site boundary. (The red arrow indicates the approximate location of the Facility site about 8.3 miles north of Photo Survey Point R-7.)



Photograph R-8 – From Photo Survey Point R-8 on Figure R-2: View from the Tam-A-Lau Trail on the plateau of the peninsula within the mapped boundary of the Cove Palisades State Park heading approximately 17° N toward the Facility site boundary. (The red arrow indicates the approximate location of the Facility site about 9.2 miles north of Photo Survey Point R-8.)

Canyon Walls of Deschutes and Crooked Rivers



Photograph R-9 – From Photo Survey Point R-9 on Figure R-2: View from the platform at the Round Butte Overlook Park Interpretive Center heading approximately 25° NE toward the Facility site boundary. While the Round Butte Overlook Park is maintained by Portland General Electric (PGE) and is not identified in local, state, federal, or tribal management plans as a significant or important scenic resource, the viewing platform provides views of the canyon walls of the Deschutes River east of Lake Billy Chinook toward the Facility site. (The red arrow indicates the approximate location of the Facility site about 4.4 miles northeast of Photo Survey Point R-9.)



Photograph R-10 – From Photo Survey Point R-10 on Figure R-2: View from a shoulder pullout on SW Jordan Road adjacent to the Crooked River’s inlet to Lake Billy Chinook heading approximately 10° N toward the Facility site boundary. (The red arrow indicates the approximate location of the Facility site about 9 miles north of Photo Survey Point R-10.)



Photograph R-11 – From Photo Survey Point R-11 on Figure R-2: View from a shoulder pullout on SW Jordan Road adjacent to the Deschutes River's inlet to Lake Billy Chinook heading approximately 20° N toward the Facility site boundary. (The red arrow indicates the approximate location of the Facility site about 9.6 miles north of Photo Survey Point R-11.)



Photograph R-12 – From Photo Survey Point R-12 on Figure R-2: View from a portion of the Deschutes Canyon – Steelhead Falls Wilderness Study Area accessible from the northbound shoulder of SW Jordan Road and adjacent to the Deschutes River’s inlet to Lake Billy Chinook heading approximately 20° N toward the Facility site boundary. (The red arrow indicates the approximate location of the Facility site about 9.9 miles north of Photo Survey Point R-12.)

Attachment R-2
Land Use Management Plan Excerpts

JEFFERSON COUNTY COMPREHENSIVE PLAN

*Adopted December 27, 2006
By Ordinance O-01-07 and O-03-07*

*Effective January 1, 2007
Amended March 28, 2007 by O-49-07
Amended June 6, 2007 by O-82-07
Amended December 5, 2007 by O-200-07
Amended September 24, 2008 by O-161-08
Amended November 12, 2008 by O-180-08
Amended October 28, 2009 by O-129-09
Amended January 27, 2010 by O-010-10
Amended April 14, 2010 by O-039-10
Amended May 22, 2013 by O-060-13*

FEDERAL WILD AND SCENIC RIVERS

The following river segments have been designated as Federal Wild and Scenic Rivers:

Deschutes River - from Pelton Dam downstream to the north county line.

Deschutes River - from the south county line downstream to the upper end of Lake Billy Chinook.

John Day River - portion within county.

Metolius River - from the Deschutes National Forest to Lake Billy Chinook.

Crooked River - from the National Grassland boundary downstream to river mile 8, south of Opal Spring.

Policy 6: Federal Wild and Scenic Rivers should be protected.

- 6.1 At or prior to the next Periodic Review, the County should investigate whether additional regulations should be adopted to implement federal management plans for the portions of the designated Federal Wild and Scenic Rivers located in the County.
- 6.2 The Zoning Ordinance should require that measures be taken to reduce the visibility of buildings from a designated federal wild and scenic river.
- 6.3 The Bureau of Land Management should be notified of proposed uses within ½ mile of a designated federal wild and scenic river.

STATE SCENIC WATERWAYS

The Oregon Parks and Recreation Department regulates the state Scenic Waterway program. They must be notified of land use activities, including cutting of trees, mining, and construction of roads, utilities, buildings and other structures. The proposed use or activity may not take place until written approval is granted. The following river segments in Jefferson County have been designated as State Scenic Waterways:

Deschutes River - from Pelton Dam downstream to the north county line.

Deschutes River – from the south county line downstream to the upper end of Lake Billy Chinook.

John Day River - portion within county

Metolius River - from Metolius Springs near Camp Sherman downstream to its confluence with Candle Creek.

Policy 7: Cooperate with state management of the State Scenic Waterways Program.

7.1 Require notification and approval from the Oregon Parks and Recreation Department State Scenic Waterways Program prior to issuance of building permits for development within a designated state scenic waterway.

7.2 At or prior to the next Periodic Review, the County should investigate whether additional regulations should be adopted to implement state management plans for the portions of the designated State Scenic Waterways located in the County. Until that time, the Zoning Ordinance should require that measures be taken to reduce the visibility of buildings from a designated river.

SCENIC VIEWS AND SITES

Jefferson County has an abundance of scenic resources. The expansive views of Mt. Jefferson and the Cascade Range are particularly well known. Sections of highways within the County have been designated as Scenic Areas by the State Scenic Area Board. This designation involves restrictions on roadside signing to prevent obstruction of the view. The program is administered by the Department of Transportation.

The many steep-walled canyons running through the County are another valuable scenic resource. The Peter Skene Ogden Wayside is a State Park facility situated on the Crooked River Gorge just north of the Jefferson County line on Highway 97. The wayside provides an impressive view of the 300 foot deep gorge, along with interpretive, sanitary and picnic facilities.

The Cove Palisades State Park is another area of spectacular canyon scenery. The park occupies shoreline areas of Lake Billy Chinook behind Round Butte Dam. Travel by boat or car provides views of the Deschutes, Crooked, and Metolius arms of the reservoir and the canyons which enclose them.

The 1981 Comprehensive Plan inventory identified the following as being outstanding scenic sites:

OUTSTANDING SCENIC SITES

- Cove Palisades State Park
- Black Butte
- The Cascade Range
- Mt. Jefferson
- Peter Skene Ogden Wayside
- Canyon walls of Deschutes and Crooked Rivers
- Jack Lake
- Round Lake
- Wizard Falls
- Bridge at Camp Sherman
- Corbett State Park at Blue Lake
- Castle Rock
- Head of Metolius River

The Upper Metolius area, Head of Jack Creek Nature Trail, Metolius Natural area and Suttle Lake area have been identified as potential outstanding scenic sites, but have not been reviewed under the Goal 5 process so have not been determined to be significant.

Policy 16: Protect scenic resources.

- 16.1 Consideration should be given to the adoption of Zoning Ordinance regulations to minimize the visibility of large or tall structures that would infringe on scenic views.

The Cove Palisades State Park



Master Plan 2002



Nature

HISTORY

Discovery

Oregon Parks and Recreation Department

- Beginning in the summer of 2002, conduct and document periodic counts of launched watercraft with 2-cycle and 4-cycle engines to sample the numbers of different types of craft on the lake. These sample counts will be taken at one or more boat launches during the peak use hours at the launch on at least one weekend day each summer for at least 5 consecutive summers.
- Beginning no later than Memorial Day weekend of 2002, work with the marina concessionaire to document the numbers of water craft with 2-cycle and 4-cycle engines rented from the concessionaire.

Scenic Resource Management

- A. **Keep views from viewpoints open.** Trees and shrubs should be selectively removed or pruned to retain important views from established viewpoints. Important areas for retaining views include the two viewpoints along the east rim road, which are planned to remain open, selected views from the Peninsula Group Camp and views from the cafe at the Marina.
- B. **Retain screening vegetation where needed.** Overall the intent is to minimize visitor awareness of facilities and maximize visitor perception of the natural setting, without obscuring accesses to recreation sites. Native trees and shrubs may be planted, as needed, to enhance screening in areas where vegetation has been lost. Important areas for retaining and enhancing screening include: Between camp sites, between the Deschutes campground and Jordan Road and between the Deschutes office and the proposed group camp and retreat and Jordan Road.
- C. **Use harmonious colors and materials.** Any construction should be done with materials and colors that blend with the natural colors of the setting. Placement of stored materials and vehicles or equipment should be done to avoid them being seen from viewpoints and from Jordan Road entering the park from the east.

Cultural Resource Management

The Cove Palisades State Park is rich in cultural resources that are fragile and not conducive to public access. Most of the lands within the park have been inventoried resulting in the documentation of numerous prehistoric and historic sites. However, many of those sites require further study in order to assess their significance and eligibility for the National Register of Historic Places. Overall, cultural resource protection measures include restricting public vehicular access to remote areas. Other monitoring and stabilization measures may be needed and many of these measures have been outlined in federal management plans. OPRD would like to enter into an interagency agreement with BLM and USFS to clarify the roles and responsibilities of each agency in completing needed cultural resource management activities.

The most prominent cultural resource in the park is the rock petroglyph, now located on Jordan Road across from the office area. A plan has been drawn up for constructing a protective roof, interpretive panels and visitor seating area and landscaping. The rock would also be reoriented to return it to its original aspect, as it was in its original location now flooded by the lake. OPRD should continue to work with the tribes to see that this project is completed to a level of mutual satisfaction, and determine what OPRD's responsibilities are for long-term maintenance of the rock and its facility.

OPRD will take appropriate steps to protect unrecorded historic and prehistoric sites discovered during project activities. Any human remains or cultural or paleontological resources discovered as a result of project activities will immediately be reported by telephone to the authorized officer. All operations in the immediate area of the discovery shall be suspended until written notification to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer, in consultation with a qualified cultural resource specialist, to determine appropriate actions to prevent the loss of significant cultural or scientific values.

United States
Department of
Agriculture

Forest Service

Pacific
Northwest
Region

1989



Reprinted
1991

Record of Decision

Land and Resource Management Plan

Ochoco National Forest and Crooked River National Grassland

Caring for the Land...

question also surfaced on the manageability of the area as wilderness. Questions were raised in respect to the confinements of Squaw Creek canyon's ability to withstand concentrated recreational use and still retain the natural features that occur there. Access for range management activities and power line maintenance, access to private land inholdings for power line maintenance, and the limited size of the proposed area were other nagging questions. Meetings were held with a few of the key individuals interested in the area, and contacts with other agency representatives were made in an attempt to seek solutions to the apparent potential problems with wilderness designation and management for this area.

In this process the Forest Service attempted to identify what were perceived as the important resources within the area in order to determine if wilderness designation was the best course of action, or if there were better means to protect those resources. The resources identified were

- Natural springs, e.g. Alder Springs
- Geologic formations
- Solitude in the Canyons
- Metolious deer winter range
- Squaw Creek fisheries
- Squaw Creek riparian area

My conclusion was, the tentative proposal in the Draft Plan/EIS for wilderness did not provide a manageable situation, and in fact would work to the detriment of protection and management of the above resources.

In place of wilderness in the Final, I have identified a 7,840-acre management area (MA-G8) centered on Squaw Creek, the management of which would emphasize the above resources and semiprimitive nonmotorized recreation. Existing road access is planned to be restricted on a seasonal basis and some roads will be permanently closed (see Travel Plan). In order to make a logical management area, and to encompass the resources identified in public consultation, the boundary of MA-G8 takes in portions of Squaw Creek canyon not included in the original inventoried roadless area or WSA. In addition, I have made an eligibility and suitability determination for Squaw Creek and am recommending the lower portion, approximately seven miles, of Squaw Creek for an addition to the Wild and Scenic Rivers System.

The Deschutes River Canyon part of the WSA, involving approximately 650 acres of National Grassland, was classified as a Scenic River under the Oregon Rivers Act of 1988.

The direction and objectives for the management of the Squaw Creek unit (MA-G8) are given in Chapter 4 of the Grassland Plan. In my judgement implementation of the wilderness proposal in the Draft Plan/EIS had not been thoroughly analyzed and would have resulted in an unmanageable situation because of size of area and nature of the terrain, that was not in the best interest of the resources involved. The management direction for MA-G8, combined with the river classification for the Deschutes River canyon and Squaw Creek, are decisions which best protect the resources identified, retain options, and is in alignment with interests of all user groups concerned. I am therefore recommending no wilderness designation for the Deschutes Canyon-Steelhead Falls WSA. No actions will be taken that conflict with existing options until Congress either accepts or rejects this recommendation.

b North Fork Crooked River

The North Fork Crooked River WSA is described in the BLM "Wilderness Environmental Impact Statement for Oregon" (draft 1985, pp 265-275, and Supplement to the DEIS, pp. 373-379). There are National Forest lands, 1,125 acres, involved in the 10,745-acre WSA. The BLM's preferred alternative is "no wilderness" for this area. The Forest Service will retain the wilderness option on its 1,125 acres until the wilderness study is complete. If the final decision is no wilderness, the land allocations for the National Forest system would be as shown in Table 18, pg ROD-29.

SCENIC OR VISUAL RESOURCES

DECISIONS

1. The canyon slopes viewable from Lake Billy Chinook Reservoir on the National Grassland have been identified as a scenic resource (MA-G13).

2. A visual corridor averaging 1,200 feet (average 600 feet each side) in width along 260 miles of Forest road has been allocated. Of this, 23,960 acres are "partial retention" and 9,300 acres are "retention" (MA-F26).

3. A separate site-specific plan for the management of the Highway 26 corridor has been developed and appended to the Forest Plan (MA-F25).

4. A visual corridor averaging 1,200 feet (average 600 feet each side) in width has been allocated in conjunction with the Round Mtn National Recreation Trail (MA-F27).

United States
Department of
Agriculture

Natural Resource
Conservation Service

1600
West
Washington

3



Land and Resource Management Plan

Part 2

Crooked River National Grassland

Caring for the Land...

**TABLE 4-2
CROOKED RIVER NATIONAL GRASSLAND MANAGEMENT AREAS**

Allocations and Resource Emphasis By Area

Management Area	Acres	% Total	Resource Emphasis
MA-G1 Antelope Winter Range	22700	20	Wildlife
MA-G2 Metolius Deer Winter Range	12740	11	Wildlife
MA-G3 General Forage	59440	53	Range
MA-G4 Research Natural Areas	110	<1	Research
MA-G5 Juniper Old Growth	740	1	Wildlife
MA-G6 Crooked River Recreation Area	720	1	Wild/Scenic River
MA-G7 Deschutes River Scenic Corridor	650	1	Wild/Scenic River
MA-G8 Squaw Creek	7840	7	Recreation/Wildlife
MA-G9 Riparian	2110	2	Riparian
MA-G10 Rimrock Springs Wildlife Area	430	<1	Wildlife
MA-G11 Haystack Reservoir	150	<1	Recreation
MA-G12 Cove Palisades State Park	2690	2	Recreation
MA-G13 Lake Billy Chinook View Area	560	1	Visuals
MA-G14 Dispersed Recreation	90	<1	Recreation
MA-G15 Gray Butte Electronic Site	80	<1	Facilities
MA-G16 Utility Corridors	460	<1	Facilities
TOTAL GRASSLAND ACRES	111510	100	

MA-G13 Lake Billy Chinook View Area

560 Acres



Description

This management area is the view area that can be seen from Lake Billy Chinook outside the Cove Palisades State Park and within the boundary of the Crooked River National Grassland.

Emphasis

Maintain the natural appearing characteristics of the viewshed from Lake Billy Chinook, where management activities are not evident, or they are visually subordinated to the surrounding landscape.

Desired Condition

The view area will be an undeveloped, natural appearing landscape with scenic qualities.

MA-G14 Dispersed Recreation

90 Acres

Description

This prescription applies to dispersed recreation sites located throughout the Grassland. These sites generally occur along roads, and many are concentrated near riparian areas and stream courses. The prescription applies to the actual site and the influence area immediately around it.

Emphasis

Provide and maintain a near-natural setting for people to utilize while pursuing outdoor recreation experiences.

Scenic Resources



Grassland-Wide Standards and Guidelines

Manage for the visual quality objectives (VQO's) listed for each management area.

Where natural catastrophes such as large wildfires, insect epidemics, or windthrows occur, management activities may differ from stated visual quality objectives.

In areas of the Grassland managed for a Visual Quality Objective of "modification" or "maximum modification," be sensitive to the needs of the viewing public. Use cost-effective visual management techniques while meeting the emphasis of the management area. Examples of these techniques may include the construction of facilities, roads, and other physical structures with native materials, where possible.

Management Area Standards and Guidelines

Resource - Scenic Resources

Practice

Visual Quality Objectives (VQO's)

Standard and Guideline

Modification. Design vegetation manipulation projects for winter range habitat improvement to conform in size, shape and color to the natural terrain, to the degree practicable.

Applicable Management Area

MA-G1 Antelope Winter Range

MA-G2 Metolius Deer Winter Range

Standard and Guideline

Retention.

Applicable Management Area

MA-G5 Juniper Old Growth
MA-G6 Crooked River Recreation Area
MA-G7 Deschutes River Scenic Corridor
MA-G8 Squaw Creek
MA-G10 Rimrock Springs Wildlife Area
MA-G11 Haystack Reservoir
MA-G12 Cove Palisades State Park
MA-G13 Lake Billy Chinook View Area
MA-G14 Dispersed Recreation

Standard and Guideline

Maximum modification.

Applicable Management Area

MA-G3 General Forage
MA-G16 Utility Corridors

Standard and Guideline

Preservation (unless otherwise approved as part of a research proposal).

Applicable Management Area

MA-G4 Research Natural Areas

Standard and Guideline

Modification.

Applicable Management Area

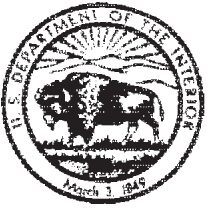
MA-G9 Riparian

Standard and Guideline

Partial Retention.

Applicable Management Area

MA-G15 Gray Butte Electronic Site



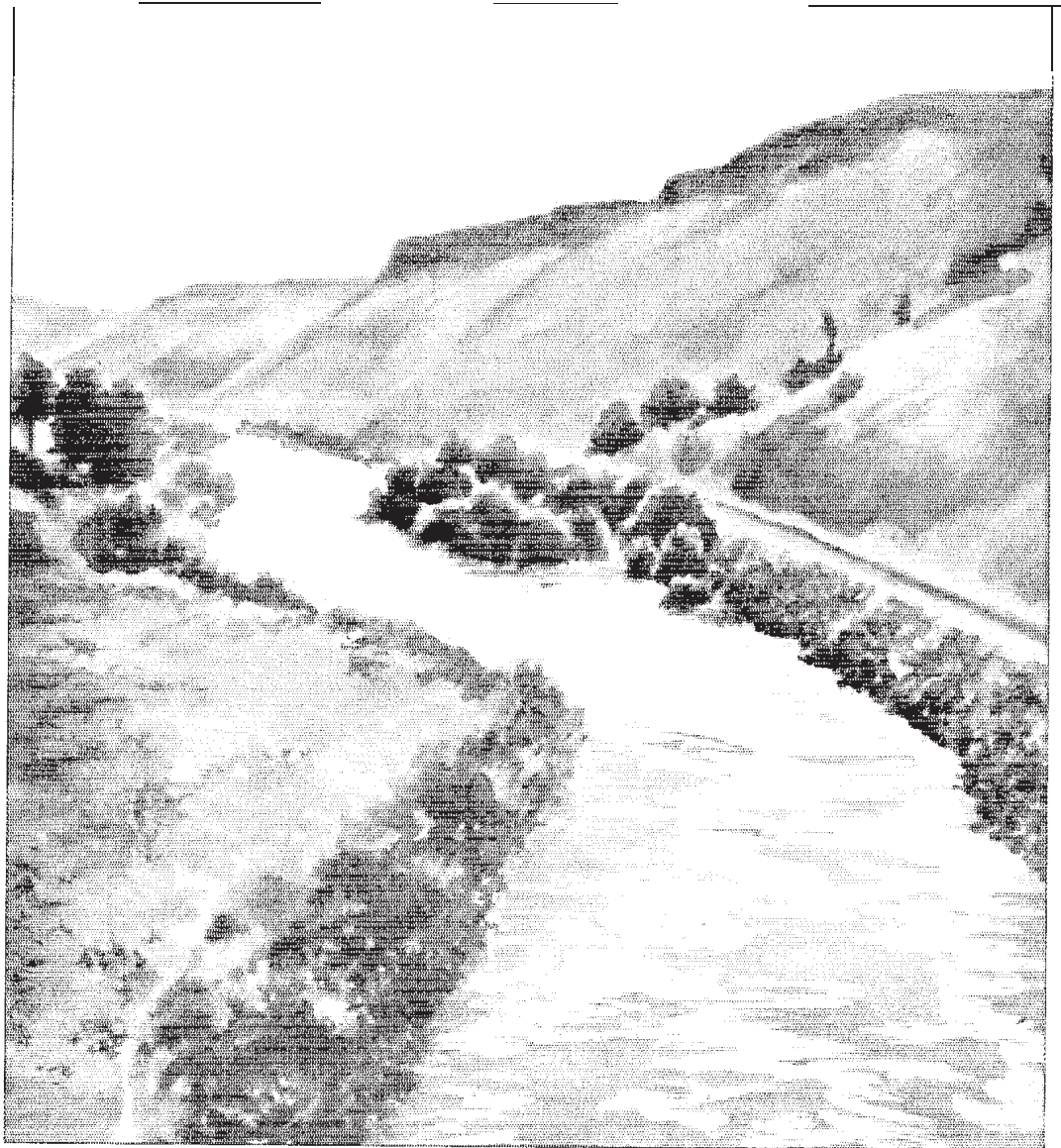
U.S. Department of the Interior
Bureau of Land Management

Prineville District Office
185 East 4th Street, P.O. Box 550,
Prineville, Oregon 97754

February 1993



Lower Deschutes River Management Plan Record of Decision





I. Record of *Decision*

Lower Deschutes River Management Plan

This plan documents decisions on 20,641 acres of public land administered by the Bureau of Land Management in the Prineville District. This land is located within the boundaries of the Lower Deschutes Wild and Scenic River. Proposed decisions contained in this document are identical to those proposed decisions in the Final Lower Deschutes River Management Plan and Environmental Impact Statement. The publication of this Record of Decision complies with Federal policy requirements and outlines the role and responsibility of BLM in implementing portions of the overall plan. Implementation of decisions in this document will protect and enhance natural and cultural resources, accommodate a variety of recreational activities and provide for public safety and services.

Comparison of Alternatives

Five alternatives for management in the Lower Deschutes River Planning Area were analyzed in the Draft Lower Deschutes River Management Plan and Environmental Impact Statement dated May, 1991. The environmental consequences of implementing each of the alternatives were described in Chapter VI of the Draft Lower Deschutes River Management Plan and Environmental Impact Statement. They are summarized in Table 1 of this document.

The selected plan provides for somewhat higher levels of overall use from 1988 baseline levels while attempting to redistribute use from peak weekends and holidays to weekday periods. Interaction with other individuals or groups would generally be moderate. The management objectives under this alternative would be to allow overall use levels to slightly increase over 1988 levels while reducing both peak recreational use levels and conflicts between user groups. Natural resource condition for most resources would be improved significantly over the 5 to 10-year implementation period. Facility development to accommodate recreational activities such as camping, boating, fishing and vehicle-oriented activities would occur so long as

the natural character of the area is not significantly changed and natural values such as soil, water, vegetation, wildlife habitat and cultural resources are protected and wherever possible, enhanced. Regeneration and controls would be handled both on-site and off-site through regulations, fees and, as a last resort, use limitations. On-site regeneration and controls would be obvious, but would be compatible with the environment and aimed at protecting natural values and visual quality. This alternative is the environmentally preferable alternative. This river management plan best meets the intent of Federal and State statutes and best resolves the river-related planning issues while contributing to the local and regional economy and protecting or enhancing outstandingly remarkable river-related resource values.

Alternative 1 would have provided for a higher level of use. The management objectives under this alternative would be to accommodate increased levels of recreational use, while protecting the environment where the sights, sounds and interaction with other individuals or groups would often be high. The character of the area would remain in a generally natural-appearing condition; however, facility development to enhance recreational opportunities such as camping, boating, fishing and vehicle-oriented activities would occur. On-site regeneration and controls would be obvious, but limited to those necessary for public safety as well as to accommodate increased numbers of visitors, and to maintain fisheries condition, soil stability and vegetative cover. This alternative would provide the widest range of beneficial uses of the river environment, but would provide the second lowest level of protection for both renewable and nonrenewable resources.

Alternative 2 described **existing management**. Alternative 2 is the baseline from which the other alternatives can be compared. This is the no-action alternative required by the National Environmental Policy Act. The intent of this alternative would be to continue present levels of management. Overall recreational use levels would be unregulated and would continue to increase causing a moderate to



II. Introduction

A. Background and River Corridor Boundaries

The Planning Area

In 1970, the lower 100 miles of the Deschutes River were designated by voter initiative as a component of the Oregon State Scenic Waterways System. By law, the boundary for this State Scenic Waterway is 1/4 mile from the bank on each side of the river. In October 1988, this same 100-mile segment from the Pelton Reregulating Dam to its confluence with the Columbia River was designated by the U.S. Congress as a National Wild and Scenic River and classified as a recreational river area. The National Wild and Scenic River has a variable boundary which averages approximately 1/4 mile on either side of the river, unlike the uniform 1/4-mile boundary in the State Scenic Waterway. The final National Wild and Scenic River boundary has been developed with public input to include and protect or enhance the outstandingly remarkable values that caused the river to be designated.

River Segments

The river has been divided into four segments based on geographical features, public road access and recreational use patterns as shown on Maps 1 and 2. The upper part of Segment 1 is the 13-mile segment from Pelton Reregulating Dam to Trout Creek. It offers both vehicular and hiking trail access. Except for the community of Warm Springs, the river canyon appears natural in character. This portion of the river offers outstanding trout fishing. Boating opportunities exist, but are restricted to nonmotorized craft and are of limited quality to whitewater boaters due to the lack of whitewater. A person visiting the area can generally expect to encounter low to moderate numbers of people.

The lower part of Segment 1 is the 28-mile segment from Trout Creek to the Deschutes Club locked

gate. It is accessible to the public primarily by boat with some point access by vehicles. While this portion of the river is paralleled by the railroad, it is still relatively remote and natural in character. Whitewater boating and trout fishing opportunities are outstanding. Some motorized boat use occurs in the lower ten miles of this segment. Low to moderate levels of use generally occur with higher numbers of users visiting the area on peak summer weekends.

Segment 2 is the 15-mile segment from the Deschutes Club locked gate to Sherars Falls. It is accessible by a paved or gravelled road along the east side of the river for the entire length of the segment. The railroad also parallels the river. The community of Maupin is located in the middle of the segment. While the area still possesses high scenic quality, it is the most developed and highly used section of the lower Deschutes. This river segment is used primarily for day use by whitewater boaters during the summer and by trout and steelhead anglers at other times of the year. Several challenging rapids and easy access make this area extremely popular with whitewater enthusiasts. Relatively low levels of motorized boat use occur in the upper portions of this segment. The experience a person has when visiting this area on a summer weekend is one of high density use and a "splash and giggle" attitude. Weekday and off-season use (mid-October to mid-May) occur at a moderate level.

The 21-mile river Segment 3 from Sherars Falls to Macks Canyon is paralleled by a gravel road on one side and a railroad on the other throughout its length. Except for the road, railroad and a few developed and semi-developed campgrounds, the area is essentially natural appearing. Relatively low levels of use occur in this area with fall steelhead fishing and summer whitewater boating being the primary activities. Both motorized and nonmotorized boat use occur.

Segment 4 is the segment extending from Macks Canyon, 23 miles downstream to the confluence of the Deschutes with the Columbia River. The railroad parallels the river throughout its length. Public access is limited primarily to boat or foot access. The character of the canyon is natural appearing and relatively remote. Fall steelhead fishing is the predominate use with lesser amounts